



HOW TO PLAN A HOUSE

A Book for all about to Build

G. GORDON SAMSON



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HOW TO PLAN A HOUSE

A BOOK FOR ALL ABOUT TO BUILD

BY

GEORGE GORDON SAMSON

ARCHITECT

Author of "Every Man his Own Builder," "Houses, Villas, Cottages, and Bungalows for Britishers and Americans Abroad," etc., etc.

With Numerous Illustrations

SECOND EDITION, REVISED



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PREFACE.

I HAVE sought in the following pages to treat a very exhaustive subject—that of planning domestic houses—in a condensed form, and, divesting it of all technicality, to make myself intelligible to the lay mind. I have endeavoured especially to write a book for the people.

In dealing with large and costly houses I felt I could only hope to interest a few, but in treating of the house suitable for the merchant retiring on his thousand a year and of the villa which the successful tradesman thinks of building, I believe I command a far wider field, and approach a subject of vital interest to many, while the “week-end” cottage has forced itself, during recent years, into a perspective which entirely refuses to be negligible.

To the mind of John Bull possession is a very dear thing. He loves to own

an acre of land or a row of cottages. All people, a certain critic assures us, may be divided into four classes: firstly, those who write; secondly, those who have written; thirdly, those who are going to write; and lastly, those who are, or believe themselves to be, victims of a conspiracy on the part of editors and publishers banded together—from motives of philanthropy we outsiders may think—to prevent them from writing. But surely the ambition to write is not more deeply rooted in the British mind—at any rate in the male mind—than the ambition to build.

How often the mechanic invests the savings of long years in bricks and mortar; to what but “a little property” does the mind of the shopkeeper revert when he has a few spare hundreds to invest outside his business? Nor are professional men any less subject to the love of property; most doctors build, and amongst lawyers who is there that does not?

That these people are often enthusiasts without knowledge is a matter daily evidenced by hundreds of crude and ill-conceived buildings erected to their order. Soon losses and disappointments further attest the ignorance of the conceptions, the faultiness of the designs; hopes are frustrated and enthusiasm crushed.

Very direful is such a consummation, and more woeful still when we reflect that it was all brought about through neglect of that time-worn adage, "Look before you leap." Want of discrimination, lack of special education, inability to choose the good and refuse the evil, these are as much the causes of failure in building as in any other enterprise. As well may a man deficient in knowledge of gardening hope to grow chrysanthemums which shall rival superb prize-takers on the show boards, as he who builds without knowledge of the why and the wherefore, the reason for adopting this arrangement or avoiding that device, may look for

success, profit, and pleasure to crown his enterprise.

It is this general ignorance of the theories which should always govern the planning of domestic houses that has induced me to endeavour to outline them in such a manner as may obtain their intelligent understanding and their practical interpretation by that section of the public which this work seeks to assist.

The lack of intelligent discrimination on the part of clients prevents an architect from achieving that concidence between his plan and the peculiar requirements of an individual client which it is his constant aim to achieve. Two treatments often present themselves for some detail of a plan: each possesses certain advantages over the other, and each possesses disadvantages. Which shall be adopted? In such a case the client, who alone has full knowledge of his own requirements, his likes, his dislikes, his idiosyncrasies, is surely the proper person to decide.

But mark what often happens. The architect calls upon him to make his choice; he explains as far as possible the advantages and disadvantages of each treatment. The client, after a few moments' deliberation, makes his choice, having never studied the matter before, having never *learned* about it all that there is to be learned, all that there is to be understood, and all that there is to be considered. Afterwards, in five cases out of every ten, he repents his decision.

Well knowing all this, the architect frequently does not consult his clients' opinion on such matters of detail at all, but follows that treatment which his own idiosyncrasy most approves. I call upon my professional brethren to say if this is not the case.

Now in such matters the client, if only he were thoroughly conversant with the subject, and could bring an intelligent discrimination to bear upon the points at issue, would be a far better judge than

the architect of the treatment which is most desirable, since it is for himself to live in and to carry out his own views and requirements that the house is to be built.

I know from experience that the average person can not only rapidly master the theory of house-planning, but can also become proficient in its practice whenever he takes enough interest in the subject to devote his attention to it thoroughly and enthusiastically; and in not a few of such cases which have come under my notice the plans have put to the blush many of those of our professional brethren. Indeed, to be quite candid, I must say, with the greatest regret, that planning is a department of architecture which receives from nine out of every ten architects but a tithe of the attention and study it demands; that consequently their plans are often regrettable examples of lack of knowledge, of crass ignorance, and of gross slovenliness, to make no mention

of those constant evidences of hurry, want of care, and logical deliberation which are only too apparent. Further, I am bound to say that the outsider, the despised and ignorant client, who has approached the subject in a humble spirit of determination to study, think about, learn, and find out all there is to know about the matter, almost always soon leaves such planning as that just alluded to far behind him, and produces such work as is the worthy and successful outcome of care, thought, and knowledge.

I therefore feel persuaded in my own mind that it is very possible to teach any man so much of the art of house-planning that he shall be able to draw plans more nearly fulfilling his own particular requirements, prejudices, and idiosyncrasies than those drawn for him by an architect would be likely to do; and it is at the accomplishment of this end that these pages aim. I have sought to deal solely with the initial or floor plans of a house,

by which, I mean those that illustrate the arrangement of the rooms, offices, &c. The other plans, such as the elevations (designs for the outside), open up a very much wider field, and one in which the amateur is little likely to achieve much success. I have therefore in no sense sought to deal with either building or architecture in the present work, and I have assumed throughout that the amateur, having sketched out his plans, will place the rest of the work in the conduct of an architect.

The plans to be found in these pages, although in the majority of cases they are the plans of houses actually built, must be considered expositive of theory and suggestive of idea rather than arbitrary, each, no doubt, requiring some alterations of detail according to the style of architectural treatment decided upon. Squareness and regularity of plan, for instance, are strongly insisted upon, and that for two reasons — economy of

material and heat; but absolute squareness and entire regularity very seldom lend themselves to artistic architectural treatment. Moreover, the present work seeks only to deal with the requirements of planning and arrangement of houses for the British Isles, each country demanding modifications in its system required by the peculiarities of the climate, the manners, customs, and general domestic economy of the people, to mention but a few of those general laws which for ever govern the art of planning.

In conclusion, I would say that I am very conscious of the many imperfections of this little work and a certain "patch-work" character which greatly pervades the text. I ask the reader to deal leniently with its shortcomings, and in extenuation I plead that it is the outcome of a busy life, the work of spare moments snatched here and there; that it has grown gradually, and in the course of several years been altered, revised, and added to—here a chapter

added and there an old plan replaced by a new one, a page cut out, a paragraph inserted. By this gradual process I hope and believe that the book has gained so much in practical usefulness that the enhanced value of its matter may extenuate the degeneration of its manner.

G. GORDON SAMSON.

BOURNEMOUTH,

December 1909.

PREFACE TO THE SECOND EDITION.

A SECOND edition having been called for, where room permitted and in response to a widely expressed desire, illustrations of a few suggestions for the outsides of some of the plans here dealt with have now been added.

G. GORDON SAMSON.

18 RUE ALPHONSE KARR,

NICE, FRANCE,

October 1913.

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HOW TO PLAN A HOUSE

CHAPTER I.

INTRODUCTORY.

ONE thing must never for an instant be lost sight of when preparing a plan. The wishes of woman—be she young and fair or not quite so young or unassistedly beautiful—must ever be considered.

The term “master of the house” implies a general authority to intimidate rate collectors and pay all the bills of the establishment rather than any direct control over the internal economy of the house or the household. At the present time, however, a man is usually permitted to build the stables and other out-buildings

appurtenant to his establishment in conformity to such principles as may appear best to the untutored instincts of the male mind. Here therefore let him rest content, nor pass the Rubicon of woman's ire.

Some unhappy and misguided men have been rash enough to build houses without the knowledge of the partners of their conjugal felicity. Short-lived indeed has been the fool's paradise of these unhappy gentlemen. On the eventful day when these edifices, invested by the pride of ownership with palatial proportions and such attractions as never house possessed since the days of Solomon, have at last reached completion, each wretched man, not without misgivings that in this affair he has acted "not wisely but too well," informs his wife of this, the last and greatest token of his undying affection, with that false and wicked formula, "I thought it would be such a charming surprise for you, my dear."

"His dear" is at first unmoved by the

munificence of his gift. But ere a week has passed away wealth of searching and sarcastic criticism by day and the dread curtain-lecture by night have dashed his idol to pieces before the eyes of the unhappy man, and made his life not worth the living.

One method of escape alone remains, and ere long a great vista of white board looms over the property, dark in the blackness of the announcement "THIS DESIRABLE PROPERTY TO BE SOLD," and those who can read between the lines see that "no unreasonable offer will be refused." But why, alas! does the doleful white board remain for so many years the tutelary deity of such properties as these? Can it be because the gentle tongue of woman has had no part in the counsels of their building that therefore no man is allowed to purchase them?

Candidly, however, and in all seriousness, woman is the most astute and valuable critic of the domestic arrange-

ments of every establishment. She is mistress of her own house, and not only knows the work that must be done to keep that house as it should be kept, but is also acquainted with the way in which that work is performed and those arrangements which will secure its most efficient execution with the maximum of despatch, economy, and cleanliness, and with the greatest ease and comfort to the servants. From the laying of a drain pipe to the decoration of her boudoir woman dearly loves to have her opinions sought, her mandates obeyed.

But on one point I will be very bold, even in the face of a hundred women's wrath. In matters of decorative colouring I will ever hold that, as a general rule, the man possesses better taste than the woman. The fair sex is too apt to be led away by a passion for novelty, which designates "high art" that which is too often more grotesquely absurd than it is appallingly incongruous.

It is cruel—it is heart-rending, almost to tears—when Lady Theodosia So-and-so writes me that “the colours she desires for the woodwork in the drawing-room of her new villa are light chrome relieved (?) with crimson lake.” This, then, is the end of all my labours. That charming villa I had vainly hoped might prove yet another step in the ladder we all try so hard to climb was thus to be defaced, and the contumely of the uninitiated—of the thousand and the one—would all fall upon me for this vagary, upon me the unwilling, me the wretched, me the architect!

At such times I can only feel that the world in general is a very wicked place, and that woman in particular is “very much other than such” as the novelist would lead us to suppose.

Nevertheless, I make a last effort. I seek to meet guile with wile. I write to Lady Theodosia: doubtless the colours she mentions would look charming, but I am inclined to think that ant-brown picked

out with bees'-wing (I have never yet quite decided just what shades of colour these terms should represent, but I consider that they are such as should carry the ring of "high art" to the feminine ear) would look quite sensationally artistic.

It is of no avail. It only elicits a reply, full of hauteur and indignation, that I should have dared to question the indisputable taste of Lady Theodosia. So it has come to this at last—light chrome RELIEVED with crimson lake.

These, then, are the two "approved colours" that I had specified so lightly but a few months before. Sorrowfully I pen them, reduced to all the mournful pomp and circumstance of professional language, and with grief is the letter posted, the order given.

"But, oh, the pity of it, Iago!

But, oh, the pity of it!"

CHAPTER II.

GENERAL REMARKS ON THE PLANNING AND ARRANGEMENT OF HOUSES.

VERY many, indeed the vast majority, of the houses that are put up to-day are planned by architects, and they often do those who designed them but scant credit. Notable examples of botches, bungles, and wasted spaces, the very arrangement of the rooms and offices in their relation to one another is often so glaringly at fault that they have called down no unmerited censure on the profession. At last the building public is beginning to discover that no magic talisman or guarantee of competency is necessarily to be associated with the mystic letters "F.R.I.B.A.," when it sees men unhesitatingly flaunt them in connection with plans in which such re-

pulsive arrangements as a servants' W.C. leading out of a scullery, and—as though this in itself were not enough to utterly condemn a plan—a larder just opposite, and leading out of the same scullery, obtain. It is futile to plead in extenuation of such dens that their exteriors are faultless examples of this or that style of architecture. Certainly there is nothing incompatible between convenience of plan and beauty of external appearance; on the contrary, the two should go hand in hand, each aiding the development of the other: but, on the other hand, a well-arranged though ugly house is always, whether as an investment or intended for the occupation of the owner, far more desirable than one in which correctness and beauty of architectural expression are not supplemented by convenience of arrangement.

An enormous number of houses, again, are planned by speculating builders, men who, though they have spent their whole

lives at this work, do not as a rule understand how it should be done, and their plans are generally far fuller of mistakes and *bêtises* than those of architects. Nor is this surprising, when we think of the class from which these men are drawn: often they are men of little or no education; frequently mere bricklayers and carpenters risen above their fellows, utterly unable to appreciate those delicate refinements of arrangement, convenience, and detail which render planning at once a science and a fine art. The unhappily common occurrence of such faulty planning is in part the fault of householders themselves who very often do not know the difference between a good house and a bad one; but this is merely lack of education in the matter, and very rarely will such people return to the house that once contented them when the differences have been pointed out and they have lived, even but for a short time, in a house conveniently planned in every particular.

Architecture is a wide subject, and one not to be learned in a day. For this reason I do not propose to touch on it in the following pages, which are devoted exclusively to the subject of *planning* houses, for the amateur architect, even if he studies his complex subject thoroughly, is very unlikely to prove successful in his first ventures. By far the best way is to submit the plans, when finished, to an architect, and let him design the outside of the house, write the specification and undertake the general superintendence of the work.

A GOOD WAY TO BUY A HOUSE.

For those, however, to whom the name of an architect is odious I would here suggest that a very good plan to adopt is to go to a builder of standing and respectability, lay before him their plans and ideas, and have an agreement drawn up in which he undertakes to build a house

in accordance with these plans and they undertake to rent it from him at a certain figure on a lease terminable at the end of four, seven, or fourteen years. Let a clause be inserted giving them the option of purchasing the house for a certain sum at any time during, say, the first three years of their tenancy. Such an agreement insures the tenant or buyer against the builder putting in *very* bad work lest the house should fall on his hands again at the expiration of the lease. Anyone who determines to build in this way ought to be a thoroughly good man of business or he will most assuredly find out sooner or later that the builder has obtained the best of the contract. In any rising neighbourhood a builder of substance will put up a house under such an agreement as this, and for those who have not a great deal of experience in such matters it is an excellent plan to adopt, because they are not obliged to purchase the property unless they desire to do so, and they can take

time to consider the matter and gain actual experience of the house by living in it. In many places also, where property is rising in value, and a person takes a house under this arrangement with the idea of merely renting it, it may in the course of two or three years have increased in value to such a degree that it will prove very much to his advantage to purchase it outright. In a word, it can do no harm to have an optional purchase clause placed in an agreement, and it often proves very advantageous to the tenant.

Again, if the rent asked for such a house be £160, and the ground-rent which the landlord pays be £20 or thereabouts, (supposing the property to be leasehold), the price asked for its purchase would usually range from £2,000 to £2,200. It would therefore be cheaper for a person to own the house, for if he rented it and invested this £2,200 even at 5 per cent.—a rate of interest only to be safely obtained with great difficulty at the present day—

it would bring him in £120 per annum only, and he would then be obliged to find £50 more to make up the rent, while if he owned it he would merely require £20 more for ground-rent. It may however be added that building by such an arrangement as has just been described is almost always more expensive than when the matter is placed in the hands of an architect, and tenders for the erection of the house are obtained from several builders in competition against each other in the usual way.

Of course those who like to move about from place to place should not purchase a house, unless it be in a rising neighbourhood where it may be easily disposed of.

It is no uncommon thing in towns that are prosperous and rapidly increasing in size, for a house to be sold five or six years after it was built for twice as much as it originally cost, provided that the site and the position be well chosen and the house be commodiously planned.

THE SELECTION OF A SITE.

In these large profits which are often made lie the secret and danger of speculating in houses—a rock upon which not a few have made shipwreck. Some people run away with the idea that because one house is a great success every house ought to be the same. Now this is a tremendous mistake. Much lies in the selection of a site, and more in the choice of position. This question of position is no easy matter to the uninitiated, for they find it so difficult to tell whether a locality is going to become popular when it is merely a field or a stretch of common marked out with pegs and possibly adorned with a large board setting forth a specious announcement of the extraordinary advantages and unprecedented value of the property, and they also find it very difficult to know what style and size of houses are likely to be built in the vicinity.

For this reason it is well to give the inexperienced a piece of advice which they will very likely consider over-cautiousness. I say emphatically, if you are building with a view to ultimately selling at a profit, do not go on to a new piece of property with nothing but a wilderness around, but go to a road that has most of the houses already built, see if they are being taken rapidly, and inquire if profits are being made in the vicinity. On the latter point you are most likely to obtain sound information from some one who has no pecuniary interest in the property. Do not be satisfied with the opinion of one person, but if all your inquiries prove satisfactory, fix upon some plot that you fancy, and, if it is no longer in the market, find out who happens to have bought the freehold or taken up the lease. Go to him, and, if he will take a reasonable profit on his bargain, buy the plot.

THE NEED OF COMMODIOUS PLANNING.

If the town is a thriving one that is growing rapidly, and if you have chosen an improving position, one thing alone remains to insure the success of the enterprise, and that one thing is this—the house you build must be convenient in its arrangement.

The first house that is let or sold in a new road is likely to be the one that is most conveniently planned, while its jerry-built, badly arranged neighbour may not only stand empty till the last, but may in the end prove a source of loss and chagrin to its owner. This is not a thing that happens seldom; it happens every day. Because one house is sold at an enormous profit, it does not at all follow that the one next to it will be sold at the same. Almost invariably the houses that fetch the highest prices are those that are the best planned; they may not be the largest

or the most imposing : people do not live on the outside of a house.

Many persons in rising towns buy new houses, live in them for a few years until the property has improved and the trees and shrubs round the place have grown up a little, and then they sell them at a profit. For those who understand this kind of thing it is a very good way of making money, but experience of the place is required in order to know what properties are likely to become valuable rapidly.

THE GENERAL FORMATION OF HOUSES— SQUARE AND OBLONG.

Having so far digressed from our subject, we will now proceed to some general remarks on house planning. In the first place, do not let your plan be full of points and angles—portions that project beyond the rest of the house. The reasons for not doing so are two-fold : firstly, more bricks and mortar are required, and the

cost is consequently increased, while in the second place, a house with so much outside wall is very cold. The ideal house would therefore be square, as such a formation conserves the heat to the greatest possible degree, and at the same time requires the minimum amount of material for construction. When a house exceeds certain dimensions, however, it is very difficult, in fact, almost impossible, to adhere to this square formation, and the next best form is oblong. In Figs. 1, 4, and 9 I have endeavoured to realise as nearly as possible the idea of a square house.

Another excellent form of house is that in two wings—the main wing and a smaller one at right angles to it (see Fig. 2). As a general rule a design of this kind is only suitable for large houses.

LIGHT PASSAGES.

Be careful in preparing plans to make ample provision for lighting the house in

every part, especially in the entrance hall and passages, where this is too often neglected. Let there be no dark nooks and corners.

The passages should have as few turns in them as possible. Let them lead where they are intended to lead, and not be turning at every moment either to the right hand or to the left. Before you plan a house make up your mind that you will not have it full of nooks and corners and spaces *a propos* of nothing in particular, for such things are a mere waste of room.

In determining the position of your doors, do not put them quite in the corner of large rooms, for this gives a mean appearance to the whole. Place them from 18 in. to 3 ft. at least from the side of the room. Of course, in the case of small rooms it is often necessary to put the door in one corner for several reasons, and where a room is not large this arrangement is less noticeable. It has now

become a very common practice to place a door in the middle of one side of a room, but such an arrangement is not to be recommended, since unless both the door and the windows are particularly well fitting there is apt to be a very great draught straight through the room, which will prevent any one from sitting with comfort at a table placed in the centre of the apartment. For this reason, and also because it gives greater facility for arranging furniture, it is preferable to have doors placed at the sides of rooms.

CHAPTER III.

THE PLANS IN DETAIL.

WE must now concern ourselves with the different parts of a house in detail; and it is to be noted that most of the following remarks apply chiefly to detached houses, such as are built, each in its own plot of ground, in the suburbs of a town, for it is with these that the present work principally seeks to deal. Nevertheless many of the observations will be found equally applicable to terrace houses, which are dealt with separately in Chapter VIII.

GROUND FLOOR.

The Porch.

Beginning from the outside, the first thing with which we have to deal is the

porch. Little can be said on this point. Porches vary so much in design that each person must observe that which he likes best and imitate it. Sometimes (as in Fig. 5) they fit into a corner of the house, while very often they stand out from the side by themselves; or again, they may be entirely inside the main body of the house (see Fig. 1).

Two things are to be noted. No design, however elegant, should be chosen which does not thoroughly keep off the rain and protect a person standing inside it, for this is the first and last use of a porch; and, secondly, the porch of a large house should not be so small that it will look mean.

The Vestibule or Lobby.

The dimensions of the vestibule vary in accordance with the size of the house—from about 4 ft. 6 in. square in a small terrace house to 9 ft. or 10 ft. in a large house.

The vestibule is often used as the home for all the hats and coats of the establishment, but it is always best, where possible, to have a separate cloak room,

The Entrance Hall.

Like the lobby, the size of the entrance hall varies with that of the house. A hall of any considerable size must be provided with a fireplace (as in Figs. 2, 5, 7, &c.) unless it be of very large dimensions (as in Fig. 1), when it will be found best to heat it by means of steam or hot-water apparatus, the furnace for which would generally be placed in some cellar under the back portion of the house.

An entrance hall may be lighted in two ways, either it may have a large window (as in Figs. 3, 4, 9, &c.) or it may be lighted from above (as in Figs. 1, 2, 5, &c.) by means of a large skylight in the roof. Of these two plans the latter possesses the advantage of being decidedly

the warmest, but it has some drawbacks, since it is impossible with this arrangement to ventilate the hall except through the front door or one of the rooms. If lighted by a large window it will be best to have this glazed with two thicknesses of glass, such an arrangement helping to keep the house much warmer in winter.

THE RECEPTION ROOMS.

The Drawing-room.

In dealing with the reception rooms of a house, the drawing-room is the first to attract our notice, as it should always, where possible, be placed near the front door, for many reasons. In several of the plans (Figs. 2, 3, 4, &c.) two rooms are shown thrown into one, forming a double drawing-room. Here the partition walls extend a foot or two from each side and then rise in an arch, supporting the wall of the room on the floor above,

which wall is built on an iron joist or girder when the arch alone is not considered strong enough to support its weight. These double drawing-rooms are much in request nowadays; indeed they become an absolute necessity in establishments where dances are given, and even if a house is built for those who do not want a double drawing-room, it is still advisable to build it as a double room, and afterwards to build the wall between the rooms up to the arch, for then, if in future years the house should fall into the hands of those who require a larger room, the partition can be thrown down again without in any way interfering with the stability of the building. This often proves a great attraction to purchasers when the house is for sale.

Another method of making two rooms into one when occasion requires, is to bring the partition walls somewhat farther forward than is necessary in the case of an arch, and use sliding doors which run

on grooved rails let into the flooring. (Fig. 1.) These are in every way superior to the old-fashioned folding doors, once so much in vogue, which are very draughty and in many other ways objectionable. Yet even these sliding doors have their disadvantages, foremost amongst which is the possibility of hearing in one room what is being said in the next; and so on the whole it is generally best to have the rooms either thrown into one or altogether divided by a brick wall.

The Position of the Door.

Remember, when planning a sitting-room, that the first object is to be able to place a table in the centre, at which you may sit without being in a direct draught between the window and the door. Therefore place your doors to one side of the room (as in Figs 1, 2, 3, 5, &c.). Of course in the case of a drawing-room, which is rarely furnished with a

table of any considerable size, this would not so much apply, and the door could, if desired, be placed in the middle ; but if so placed, it will be found difficult, unless the room be a large one, to find appropriate places for a grand piano and a bookcase of ordinary size, both of which are found in almost all drawing-rooms.

The Dining-room.

It is inconvenient to have this room, in any but very small houses, less than 17 ft. long. In ordinary houses 18, 19, and 20 ft. for small, and 24 ft. for large dining-rooms are desirable lengths.

With regard to the breadth of the room, it will be found that the servants have difficulty in getting round the table when the family is seated at meals if the room be less than 16 ft. wide—that is, supposing that there is some piece of furniture such a chiffonier or chairs (as in almost every case there is) on one side of a room

and a fireplace on the opposite side. I regard 17 ft. as the most desirable width for a dining-room, but there is one method by which it may conveniently be reduced 1 ft. or even 2 ft. It will at once be seen that the chimney, fireplace, and hearth



Room with Chimney built Outside.

project altogether some 2 ft. 6 in. from the side of the room. Now the chimney may be built altogether outside the room in a recess, as shown in the accompanying sketch, and this allows of the width being reduced by nearly 2 ft. This recess may be roofed in, and need not extend beyond

the ground floor, the chimney in the room above being built inside the house in the ordinary way. Small windows are often placed in either side of the recess, while sometimes one is placed immediately over the fireplace. By building a chimney in the same way as that in the dining-room (Fig. 9) some 6 in. can be saved in the breadth of the room, the entire chimney projecting to the extent of half a brick outside the main wall of the house.

The fireplace may also be advantageously placed at the end of a narrow dining-room, where the length is sufficient to justify such an arrangement (see Fig. 8).

WINDOWS.

The question of windows is a very important one. It is quite as bad to have too many windows in a room as it is to have too few. We want to have sufficient light and yet avoid an excessive amount of glass, for the latter is very cold. Another

thing to be considered is the position of the windows, for we must not have draughts straight through the room. Therefore let a rule be made that, except in the case of very large apartments, the windows had better all be placed in one side of the room, and in one side only.

For a room about 20 ft. by 16 ft. a bay window with one large window 4 ft. 6 in. or 5 ft. broad, and two narrow ones, 2 ft. broad, at the sides will be amply sufficient. (See the drawing-room windows in Fig. 5.) Such a room may also be well, though not quite *so* well, lighted by a square bay, containing a 3 ft. 6 in. or 4 ft. window in the centre with a 2 ft. one on each side of it. (See morning-room windows in Fig. 5.) A dining-room, up to 24 ft. long, will be well lighted by three windows at one end, the centre one 3 ft. 6 in. or 4 ft., and the side ones 2 ft. or 2 ft. 6 in. wide (see dining-room, Fig. 5); but if these windows be placed in a square bay,

some allowance must be made for the fact that the sides of the bay slightly detract from the lightness of the room, for they obstruct the entrance of the light to a certain extent, more especially if the bay be a deep one.

Very frequently windows are placed in the sides of square bays (see annexed illustration) with the object of giving



Square Bay Window, having windows at sides.

more light to the room. This they fail to do to any appreciable extent, especially when placed in deep bays. They are usually made very narrow—15 in. or 18 in. broad—and they throw most of their light from one side of the bay to the other, as indicated by the direction of the arrows in sketch. I would therefore very strongly advocate the rejection of windows in such a position.

THE OFFICES.

Lavatory and W.C.

In small houses the front staircase is generally placed in the main portion of the entrance hall, while in larger ones it is frequently placed in a wing of that hall. In the latter case it is often desirable to place the W.C. and lavatory beneath the half landing of the stairs. (See Fig. 3.) The disadvantage of such an arrangement is that the lavatory, which is also the cloak-room, is very small. The W.C. is often placed near the front door (see Figs. 2, 4, 7, &c.), but there are disadvantages as well as advantages to this plan, the principal among the former being that, from their position, the W.C. and lavatory are often very cold in winter, and that unpleasant odours are sometimes perceptible immediately on entering the house.

It is very desirable to have a cloak-

room and lavatory in every house of any size, for the cupboard which is so often provided beneath the staircase for the reception of the hats and coats of the male members of the establishment* is utterly inadequate for the purpose, while if left upon a stand in the hall they are exposed to dust and dirt.

The Pantry.

The butler's pantry, as well as the kitchen, should for manifest reasons be placed near the dining-room. One 15 ft. by 10 ft. is of ample size for a large house, and for smaller houses they also may be smaller in proportion. It is often found convenient to make the pantry lead out of the dining-room, and occasionally into the kitchen. (See Figs. 1, 2, 4, 8, &c.) It is best to arrange the sink at the end of the pantry, just under the window, and to have a dresser with cupboards underneath running along one side. Small

cupboards for glass, china, &c., may be placed over this dresser.

The Kitchen and Scullery.

A good size for a large kitchen is about 20 ft. by 15 ft. From this size we gradually descend to about 12 ft. by 12 ft. or 14 ft. for a very small terrace house. Some persons do not like to have the range in the kitchen placed against the wall next to one of the sitting-rooms—usually the dining-room—as it is shown in Figs. 3 and 5. Their reason for objecting to this arrangement is that the noise of poking and raking the fire is sometimes slightly audible in the sitting-room that adjoins the kitchen; but, for my own part, I must confess that the advantages seem to me greatly to exceed the disadvantages, since this large fire at the back warms the wall, and keeps not only the sitting-room but also the bedroom over this sitting-room, as well as that over the kitchen itself, so warm and com-

fortable that very often when other rooms in the house require small fires in them these need none at all.

It is always convenient to have two large cupboards in a kitchen, which can usually be placed one on each side of the fireplace. The scullery should, of course, lead out of the kitchen.

THE HOT-WATER SYSTEM.

It is very seldom that one finds the hot-water system connected, as it should always be, with the scullery range as well as with the one in the kitchen, so that when there is a fire in the scullery only hot water shall be supplied all over the house just as it is when the fire happens to be in the kitchen. This is an exceedingly important point, especially in houses where there is no servants' hall, for the kitchen becomes intolerably hot during the summer if there is a fire in it, and it is quite unreasonable to expect servants

to sit there. But if the hot-water system is so arranged that it may be worked by a fire in the scullery just the same as by that in the kitchen, then the kitchen fire need never be lighted during the summer, and all the cooking may be done in the scullery.

Wherever it is possible to do so, the hot-water cistern should be placed in an attic above, or nearly above, the kitchen. It is both useless and expensive to carry the pipes to the other end of the house. The hot cistern is sometimes placed in the kitchen or scullery, but this is a most disagreeable plan in summer time, when the heat that it gives off becomes insupportable. Where there is room for it in the bathroom, there is no reason why it should not be placed there, and it is especially advantageous if the pipes can be carried through the linen cupboard (which in so many houses is placed in the bathroom), as such an arrangement serves to keep the linen perfectly aired. It is desirable that the

cupboard be fitted with slatted shelves to admit a free current of air throughout the entire space.

THE LARDER, STOREROOM, &C.

A house is hardly complete without a storeroom. It need not be large, but it should never be omitted. It is best, wherever possible, to light a storeroom from the outer air, but where this is impossible and the light must come from another room, be sure to make the window large enough, and do not plan the dark, pokey holes which we so often see doing duty for storerooms.

The food pantry or larder should have a north or north-east aspect if possible, as this is the coolest. I have seen the kitchen fire built against the wall of the larder. Such planning is simply atrocious ; it were almost better to have a larder with its aspect due south than to build a fireplace at the back of it.

THE BACK STAIRS.

The back stairs of a house are usually made far too narrow—2 ft. 3 in. and 2 ft. 6 in. are both too narrow widths. When coal scuttles, servants' boxes, or other large things are carried up such narrow stairs to the first floor or the attics the walls are sure to get very much knocked about. The back stairs of any house should therefore not be less than 3 ft. wide.

THE YARD, OUTHOUSES, &c.

Sometimes (as in Figs. 1, 3, 5, &c.) a house is provided with a back door as well as a yard door, while sometimes the door leading into the yard does duty for both. I consider the former to be the best arrangement for many reasons. But when this plan is adopted it is manifestly quite as important to have a separate door leading out of the yard as it is when the only back door of the house must be ap-

proached by the tradesmen through the back yard.

The number of outhouses considered necessary varies considerably. Often a yard W.C., a coal house, and a boot and knife house are all that are provided. In the yards of Figs. 5 and 6, which I consider are the most desirable ones in this series of plans, a dust house and a lumber shed are also provided, while opening into the garden is a tool house for the various implements required in a garden.

In these days of coal strikes it seems very advantageous that even small houses should be provided with much larger coal houses or cellars than are usually considered sufficient, in order that a quantity of coals, bought by the truck load when they are cheap, might be constantly kept in stock ready to be drawn upon at times when the price of coals is fabulously inflated by the strikes and locks-out which are now only too frequent a feature of the coal trade. By this means householders

would be saved much expense. Coals bought direct from the collieries in quantity are also cheaper at all times than those purchased locally of retail merchants. A truck-load of coal usually contains from five tons (a very small load) to ten tons (a very large load.) A coal house 10 ft. by 10 ft. will *comfortably* accommodate about eight tons of coal, and considerably more in cases of emergency. But it is now often desirable to make a considerable increase on the size just mentioned, where coals are purchased by the truck load, so that the capacity of the coal house may be two or three loads, in order that the quantity in stock may never, even for a short time, be allowed to be less than ten or twelve tons, in view of the possibility of a strike.

THE FIRST FLOOR.

The Bedrooms.

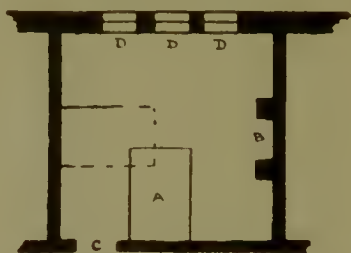
The bedrooms are, with very few exceptions, placed immediately over the rooms

below them, and are of the same size. Of course where there is a double drawing-room below, there will be two distinct rooms above, and in like manner the space over other very large reception rooms will often be divided into two apartments.

The object most to be kept in view when designing a bedroom is naturally to make it capable of suitably containing a bed, but this seems frequently forgotten nowadays. We see bedrooms in which our ingenuity would be sorely taxed to find a suitable place for a bed. Where the designer thought of putting it, would be hard to say—perhaps he temporarily forgot this trivial matter when preparing the plans. You might put the bed just under the window, or so close to the fire that the clothes would be scorched, or you might put it in a direct draught from the door; but there is no suitable place.

Where the head of the bed is placed at right angles to the door, as represented by the dotted line in the accompanying

figure, a screen will usually be needed to keep off the draught from the door, and often another to keep off that from the window. For this reason it is better to have the head of the bed parallel with the door and opposite the window, as shown by A, in the accompanying figure.



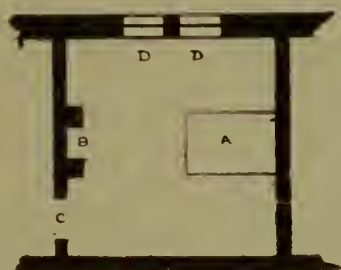
Bedroom.

A, bed ; B, fireplace ; C, door ; D, window.

It may be asked why the door is not placed on the other side of the bed ? This should never be done when it is possible to arrange it otherwise, because the fire is apt to draw the air so strongly through the chinks around the door when it is in this position that a very strong draught

is often raised, and also the fire is sometimes induced to smoke.

Care must be taken not to make the room so narrow that the bed will have to be placed too near the fire. 9 ft. between the side of the door and the farther side of the room will be an ample



Bedroom.

A, bed ; B, fireplace ; C, door ; D, window.

width for a large single bed, but if a double bed is to be placed in the room at least 2 ft. more should be allowed.

Another good plan for a bedroom is shown in the second figure. Here the head of the bed is well out of reach of any draughts from both window and door.

The Dressing-rooms.

A dressing-room, when large enough, should have a fireplace in it, if it is possible to put one, for then the room may be used as a bedroom in winter as well as summer should occasion require. In putting a fireplace in a dressing-room it often becomes necessary to depart from the general system and put it in a direct line with the door (see Fig. 3); but the bed being in a corner of the room is out of the way of draughts. It is of course always necessary to put the door quite close to the side of such a dressing-room, so as to leave sufficient room for the bed.

The Bathroom and W.C.

It will usually be found most convenient to place the bathroom over either the lavatory and W.C. or else the butler's pantry. In any case it should be as near as possible to the kitchen and the

hot-water system, that the necessity for taking the hot-water pipes any great distance from the cistern may be obviated.

In most of the following plans a W.C. is provided in the bathroom. This arrangement is a very common one in Scotland and the North of England: should it be objected to, it would be an easy matter to alter it.

The Housemaids' Closet.

The housemaids' closet, where the sink for emptying the slops is, and where the brooms, cans, and general paraphernalia connected with the upper floor of a house are kept, should be arranged as a separate little room wherever possible (as in Figs. 1, 2, 5, &c.); but where this cannot be managed, the sink must be placed in the corner of a passage where it will not be noticeable. Under ordinary circumstances it should not be less than 4 ft. wide, and it should have a dresser with cupboards

underneath and shelves above for standing cans, &c., upon.

THE ATTICS.

The back stairs leading from the first floor to the attics will of course be immediately over those leading from the ground to the first floor. In most cases, three attics for servants' bedrooms and one good-sized box room will be sufficient.

Of course it is scarcely part of that person's duty who prepares the floor plans of a house to see that the roof does not slant down over the top passages in such a way that people continually knock their heads against it, or to see that the rafters in the attics are not sloped down just where lighted candles are most likely to be placed below them; but as some architects are liable to take but little notice of these matters, any one about to build a house should carefully investigate the elevations (designs for the outside of

the house), and even more especially the sections (which may be described as elevations of the interior) with a view to seeing that such points have received attention.

In bringing this chapter to a conclusion, it is well to note that the tendency of the present day is more and more markedly to build suburban residences with but two floors and attics as servants' bedrooms above. In many cases the attics are omitted, and the servants' bedrooms placed on the first floor at the back of the house. It is such houses as these that most of the following plans illustrate. Where more bedrooms are required it is a simple matter to add another floor to the plans of the house.

CHAPTER IV.

HOUSES WITH FOUR RECEPTION ROOMS.

It would be safe to affirm that for every house built containing more than four reception rooms, a hundred are erected with only four or three. For very large houses there is comparatively little demand at the present day, and whenever it is desired to sell them the market is found to be small, so that they not infrequently realise but poor prices compared with those of medium size. For this reason I propose to touch but lightly on the subject, as being of small interest to the general public, and merely give one illustration (Fig. 1) as offering a general outline for the plan of such a house.

The plans are probably sufficiently plain to speak for themselves, but for those who

have never seen such things before it may be well to say that doors are here represented by a break in the wall; windows also by a break, having, however, three straight lines across it, while chimneys are represented by an excrescence from the wall. The stairs speak for themselves.

In this plan we should notice that an abundance of windows is provided in the lobby and cloak-room, which are only divided from the entrance hall by a glazed screen, through which the latter is lighted. The entrance hall is divided from the spacious staircase hall by an arch (indicated by dotted lines). The latter hall is lighted from above by means of a large skylight. The back hall and staircase are lighted in a similar manner. The cloak-room is provided with a lavatory basin and is of just sufficient size to admit of a partition for a small W.C. if necessary. The front staircase is a double one, and leads to a large landing on the first floor. The

dining, drawing, and morning rooms all lead out of the entrance hall. A safe for silver, &c., is provided in the dining-room. The two drawing-rooms are divided from each other by means of sliding doors, such as are described in the preceding chapter. The fireplace in the larger drawing-room is in an ingle-nook or chimney corner, the sides of which offer suitable positions for settles.

Young people hold that for a conservatory to afford secluded corners such as that behind the chimney back and the porch wall is evidence of good planning ; but an intelligent gardener is required to supplement the efforts of the architect with groups of plants arranged in the right places and in the right way. Prudent mothers will keep a vigilant look-out on such conservatories.

In the billiard-room, which leads out of the smoking-room, enough space is provided for lounges at the sides. It is lighted by means of several windows in



FIG. 1.—FIRST FLOOR PLAN.

Scale, $\frac{1}{8}$ inch equals one foot.

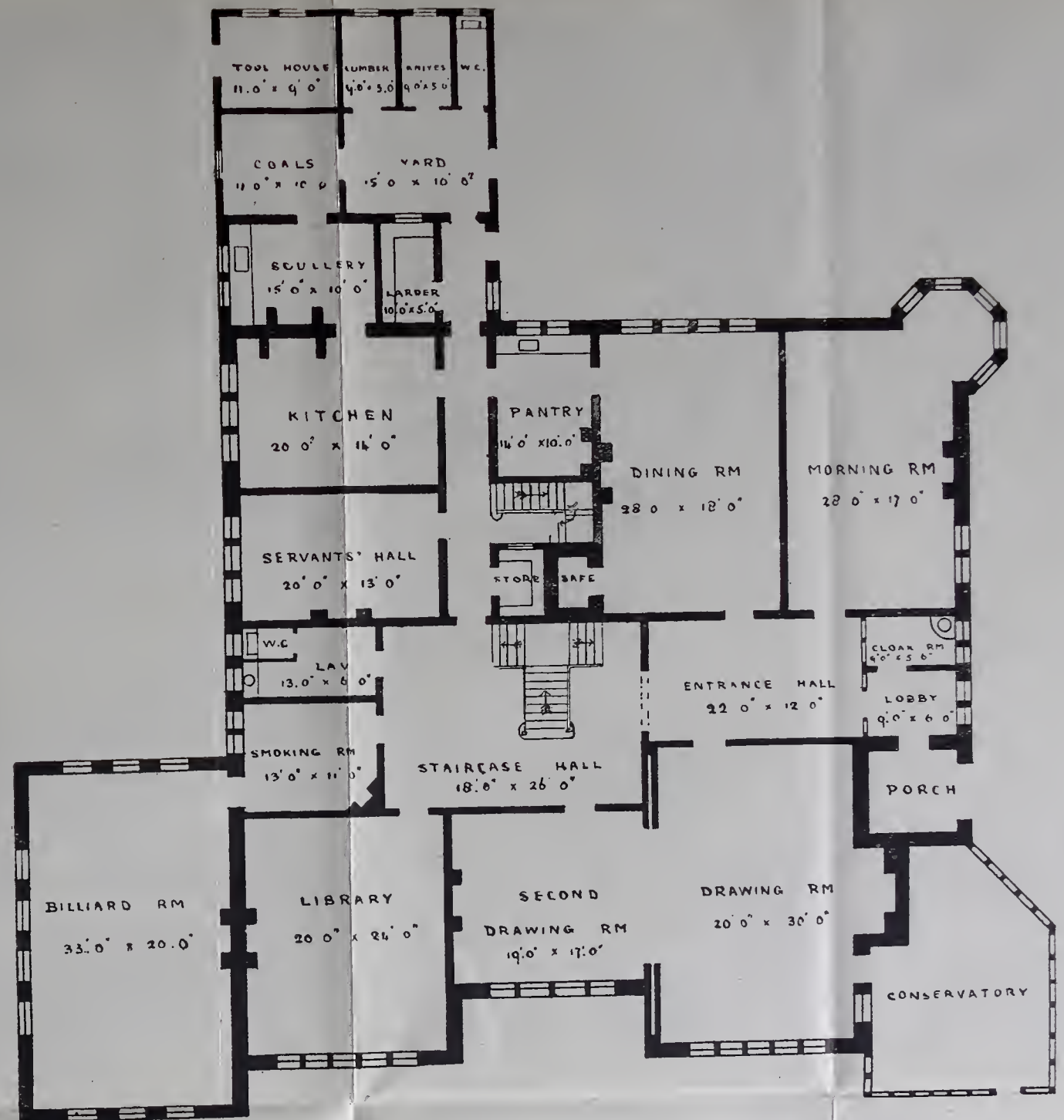


FIG. 1.—GROUND FLOOR PLAN.

Scale, $\frac{1}{16}$ inch equals one foot.

[To face page 50.]

the side walls, but a far better plan is to light it chiefly from above by means of a large lantern skylight in the roof.

In this plan the scullery and larder as well as the billiard-room are one-storeyed out buildings, and are not continued on the plan of the next storey.

The yard is surrounded by the coal, tool, lumber, and knife houses, &c. The coal house is provided with two doors, one leading into the yard and the other into the scullery, an arrangement which some object to on the ground that it tends to make the scullery dirty, while others like it on account of its convenience during cold or wet weather.

The windows of the dining-room might appropriately be glazed with stained and leaded glass (which may now be had in so many elegant designs at reasonable prices) to prevent any direct view of the yard wall or of the approach to the tradesmen's entrance from the inside of the room. The same end could also be

accomplished by skilfully planting the ground outside with suitable evergreen trees and shrubs, or by a slight alteration in the plan of the yard the approach to the back door might be made from the other side of the house. Indeed, the back door itself could well be placed on the other side by a little modification in the general arrangements of the servants' hall, kitchen, and other offices.

The hall and the landing above it are of such a size that they would best be heated by means of hot-water or steam apparatus, the furnace for which should be in a cellar beneath the back portion of the house. Cellars also for wine and beer should be provided. The stairs leading down to these would, of course, be immediately under the back stairs which lead up to the first floor.

Passing on to the first floor, we find six large bedrooms, three of which have dressing-rooms attached, and one single bedroom over the smoking-room. The

wall between bedroom No. 7 and the dressing-room leading from it would be built on an iron girder, there being no wall below it on the ground floor, while the two walls immediately parallel to it could be constructed of wooden framing since they contain no fireplaces, or they also might, if preferred, be built of brick on iron girders.

In the back portion of the house there are two men-servants' bedrooms (one of large size) and a housemaids' closet. Should nurseries be required, bedroom No. 5 and the larger servants' bedroom might well become respectively the day and night nursery, while the smaller servants' bedroom would be converted into a nurse's bedroom. Attics would, in any case, be added above this back portion of the house for the maid-servants' bedrooms.

It will be noted that, while the height of the reception rooms in this house should be about 11 ft. 6 in. or 12 ft. 6 in., 9 ft. or 9 ft. 6 in. would be quite high

enough for the kitchen, pantry, and other offices occupying the back portion of the house. In like manner the bedrooms in the back of the house, being of a secondary description, should be lower than those leading off the front landing. By this means attics may be placed in the back portion of the house, and yet the height of the whole kept at almost the same level.

Cost.

The cost of the house shown in this plan, substantially built, and finished in a style suitable to its size and pretensions, would be from £4,500 to £5,500, according to the quality of the internal decorations and fittings, &c.

A HOUSE WITH FOUR RECEPTION ROOMS, LAUNDRY, WASH-HOUSE, &c.

Fig. 2 illustrates a house with four reception rooms, front and back stairs,

laundry, wash-house, kitchen, and other offices.

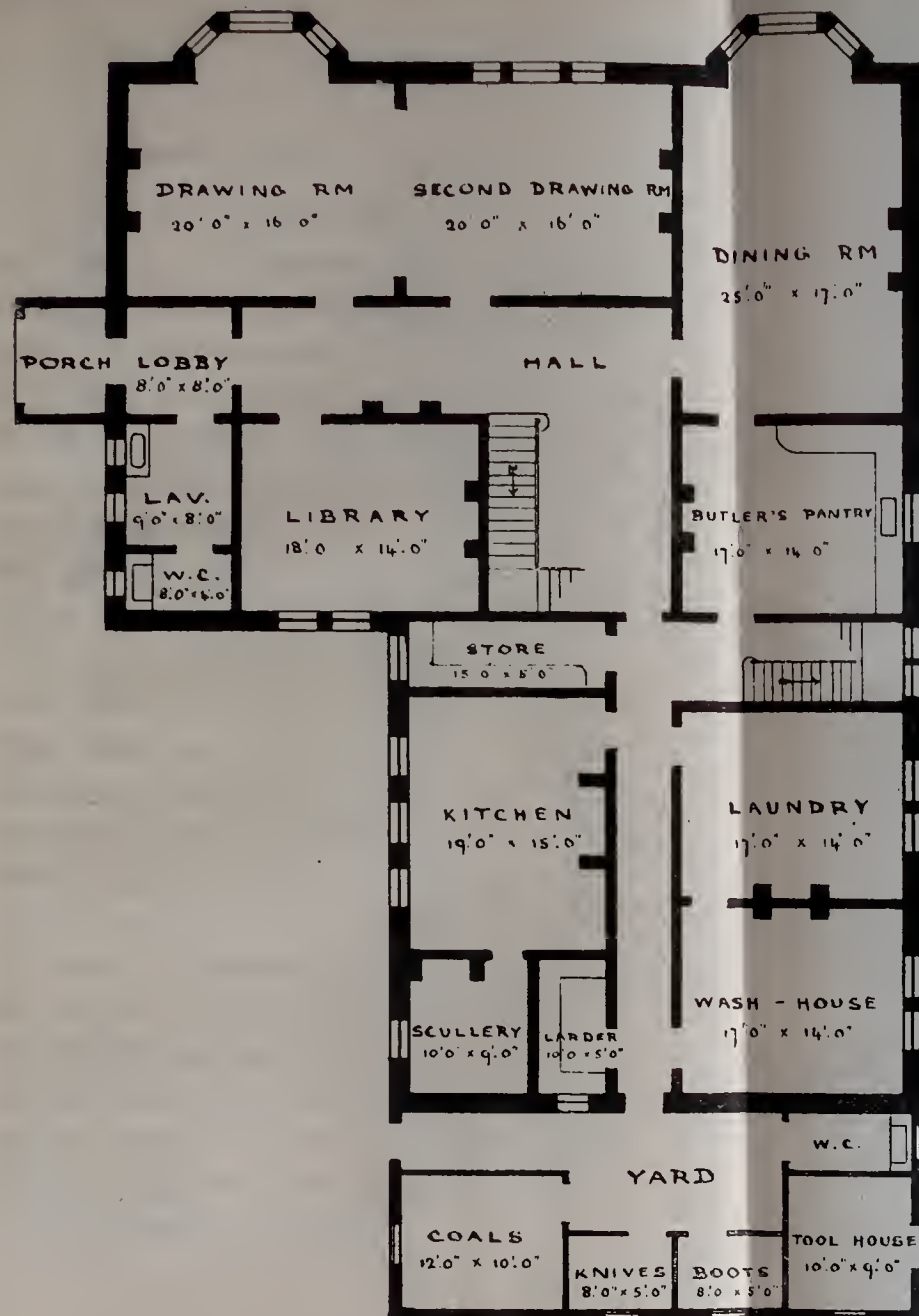
The hall of this house will be lighted from above by means of a large skylight in the ceiling (with another in the roof just above it) some 10 or 12 ft. square. It is intended that the front and lobby doors shall be provided with glass panels, and that fanlights shall be placed above them. This will sufficiently lighten that end of the hall near the entrance. The back door must also be provided with glass panels and a large fanlight.

The hall in this house, and indeed those in all the others dealt with in the present chapter, are too large to be adequately heated in cold weather by an open fire, and stoves are really almost a necessity for them. Small stoves on the first-floor landings are also highly desirable.

If a billiard-room is required it can be built next to the dining-room, out of which it would lead. A conservatory could be arranged in some cases near the front

door and against the wall of the drawing-room, out of which it would lead; it would also open upon the garden or into the porch.

This plan might be altered so that the house should contain five reception rooms instead of only four. The dining-room would in this case be placed where the pantry is shown in the plan, the original dining-room (which would then become the extra reception room) being very much shortened by this means. The pantry would still be next to the dining-room, and would lead out of it, but it would be situated in the back instead of the main wing of the house, where the back stairs were in the original plan; and it would be made narrower than formerly. The kitchen would come next to the pantry, and farther on would be the scullery and larder. By this means the laundry, wash-house, and back stairs would be removed to the other side of the passage.



GROUND FLOOR PLAN.



FIRST FLOOR PLAN.

FIG. 2.

Scale, $\frac{1}{16}$ inch equals one foot.

[To face page 56.]

It may be objected to the outlines of the plans of the house shown in Fig. 2 that they are too straight and smack too strongly of the nature of a packing box. Yet they lend themselves peculiarly to architectural skill, and a very charming house may be built from them. Moreover, slight changes quite immaterial to the general plans of the house may be made so as to avoid the monotony of one long, unbroken, straight wall. It must, however, always be borne in mind that abutments and portions projecting beyond the rest of the edifice are things which are sure to intrude themselves quite often enough, without the designer ever going out of his way to seek them, and it cannot be impressed too strongly upon the amateur that he should not make a practice of courting them. Only too many of the houses built nowadays are melancholy examples of this craze for fantastic design, and are alike unsightly without and uncomfortable within.

A SMALLER HOUSE.

Fig. 3 represents a somewhat smaller house than the foregoing, and does not call for many remarks. Turning to the ground floor it may very naturally be asked why the W.C. is not planned to lead out of the lavatory? The reason is that in most cases the lavatory also does duty for cloak-room, and that if a door were made into the W.C., a good wall, which at present may be used for hanging hats and coats upon would be lost. It is for this same reason, viz., to give more wall space for hanging coats, &c., upon, that the window of the lavatory is quite in one corner, and the basin immediately below it, since in damp weather it is hardly desirable to hang things near to a window that may often be left open through hours of rain, and if the window were placed in the middle a certain empty space would have to be left on *both* sides on account of this, while by placing it in

the corner a space need only be left on *one* side.

If a billiard-room be required it could be built next to, and leading out of the dining-room.

The hall is lighted by a large window on the half-landing of the staircase, extending from some 21 in. above the level of the landing to almost the ceiling of the first floor.

In one corner of the gardener's tool house a flue is provided for the small furnace necessary to heat the little conservatory leading out of the morning room.

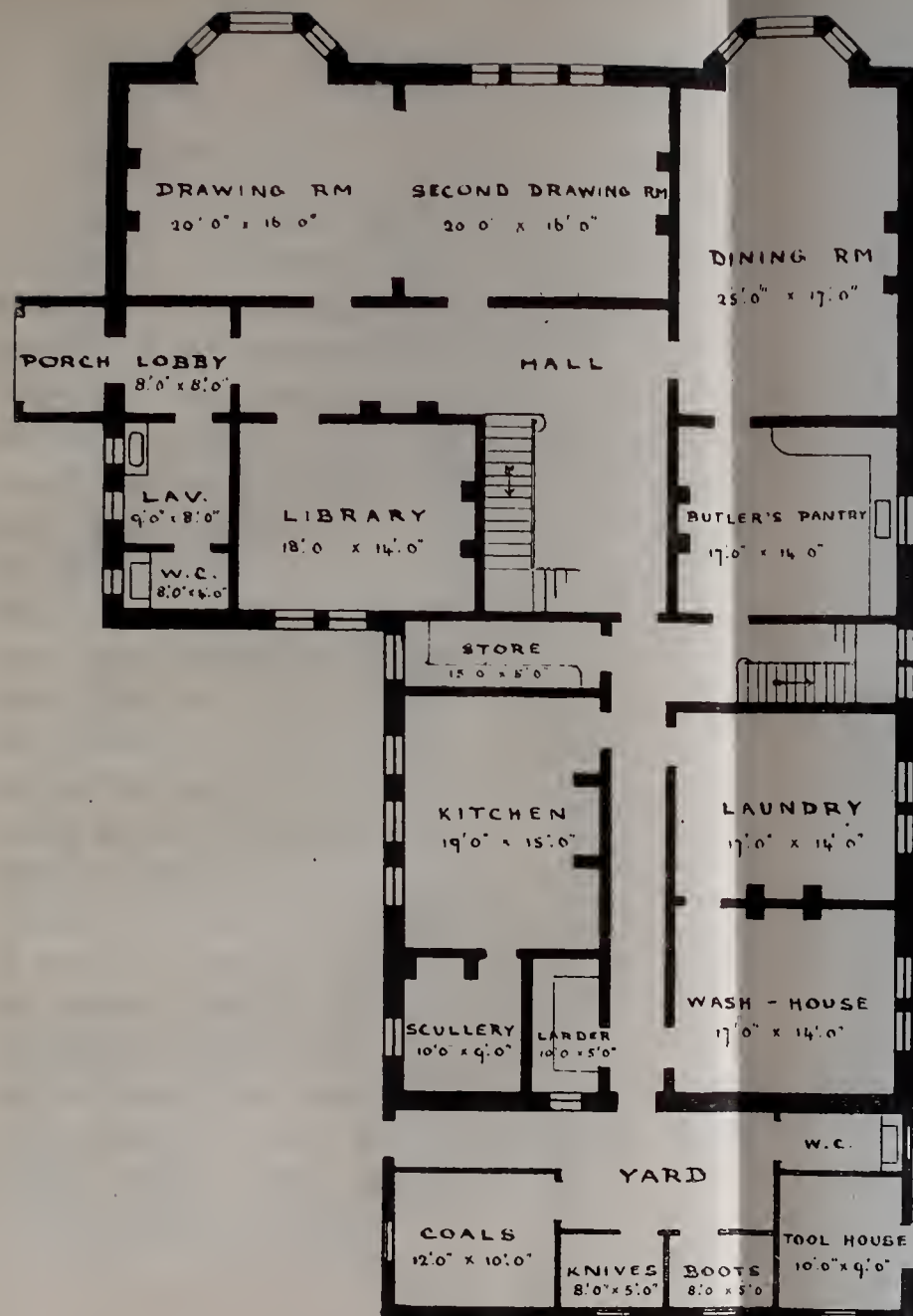
Proceeding to the first floor, we may notice that, if required, a fireplace could be placed in the dressing-room belonging to bedroom No. 2, in the corner next bedroom No. 2, the flue being carried up in the same chimney-stack as that of this bedroom.

The partition between the front and back landings must be panelled with

glass entirely, as must also the door, to assist in lighting the portion of the front landing near to it, which would otherwise be somewhat dark. The back landing will be lighted from above by a large skylight or dormer light in the ceiling and roof above.

The bathroom in this, as in the preceding plan, contains in addition to the bath a large cupboard for linen, a lavatory basin, and a W.C.

Supposing that nurseries are required they can be added in the form of attics to this house. The aspect of the building will presumably be south or at any rate southerly, so that the two drawing-rooms and the dining-room will face this way. The nurseries ought therefore to be placed over these rooms, that they too may enjoy a southerly aspect. Of course it would be simpler to convert the original servants' bedrooms into nurseries, and to build another floor above them for servants' bedrooms, but by this plan the nurseries



GROUND FLOOR PLAN.



FIRST FLOOR PLAN.

FIG. 2.

Scale, $\frac{1}{16}$ inch equals one foot.

[To face page 56.]

would have a cold and dull northerly aspect; and it is so well known that warmth and sunshine are essential for young children that no sensible person would ever attempt to dispense with them.

In adding a third storey, some slight modifications of the ground and first floors become necessary. In the first place, it will be seen that the back landing on the first floor can no longer be efficiently lighted from a skylight above, and some further means must be found. To this end the wall of the housemaids' cupboard from A to B, and the door are done away with, and the large window then assists to light the passage.

The stairs to the attics will be in exactly a similar position to that which those from the ground to the first floor occupy.

As the end of the back hall near the kitchen and pantry doors may be somewhat dark, it will be desirable to have a large fanlight over the kitchen door to assist in lighting it.

ANOTHER STYLE OF HOUSE.

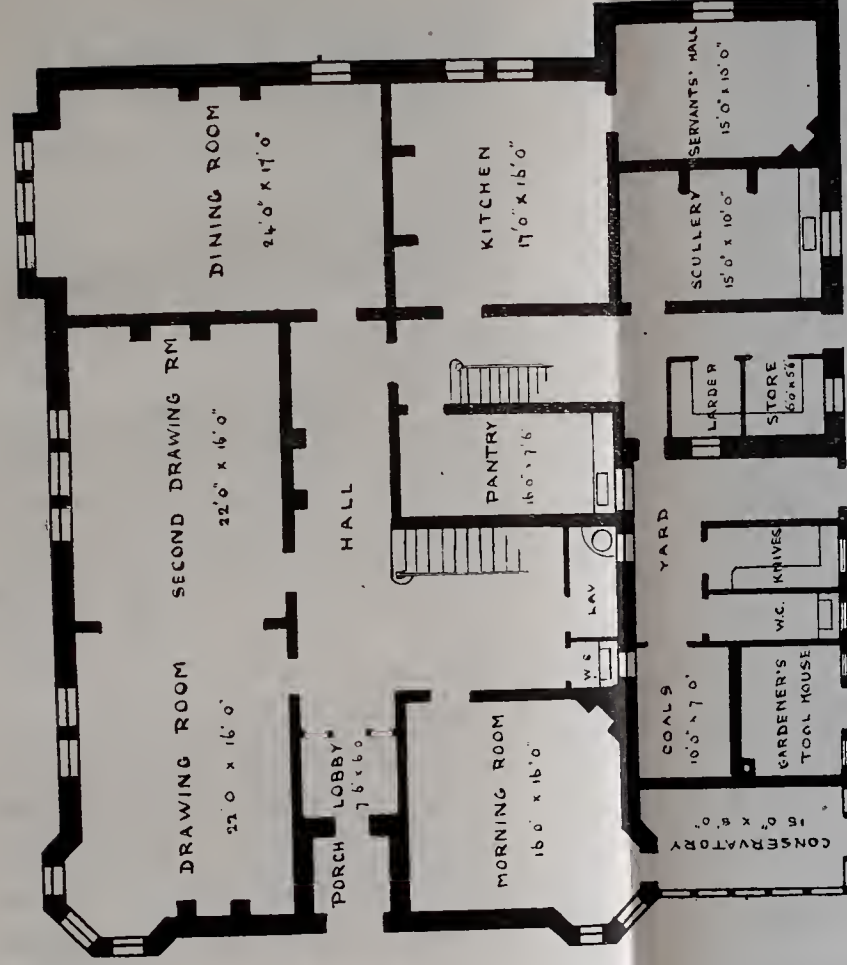
The chief characteristics of the house represented in Fig. 4 are its large hall and the spacious half-landing above the butler's pantry, which are both very suitable for those who like halls that can be fitted up as rooms with chairs and small tables, and landings where lounges, &c. can be arranged commanding wide views from the large windows before them.

In this house it is intended that the front and lobby doors should be provided with glass panels, and that there should be fanlights over them to assist in lighting that end of the hall near by. The lavatory and W.C. doors must also have glass panels, and there should be a fanlight above the W.C. door to efficiently light the lavatory.

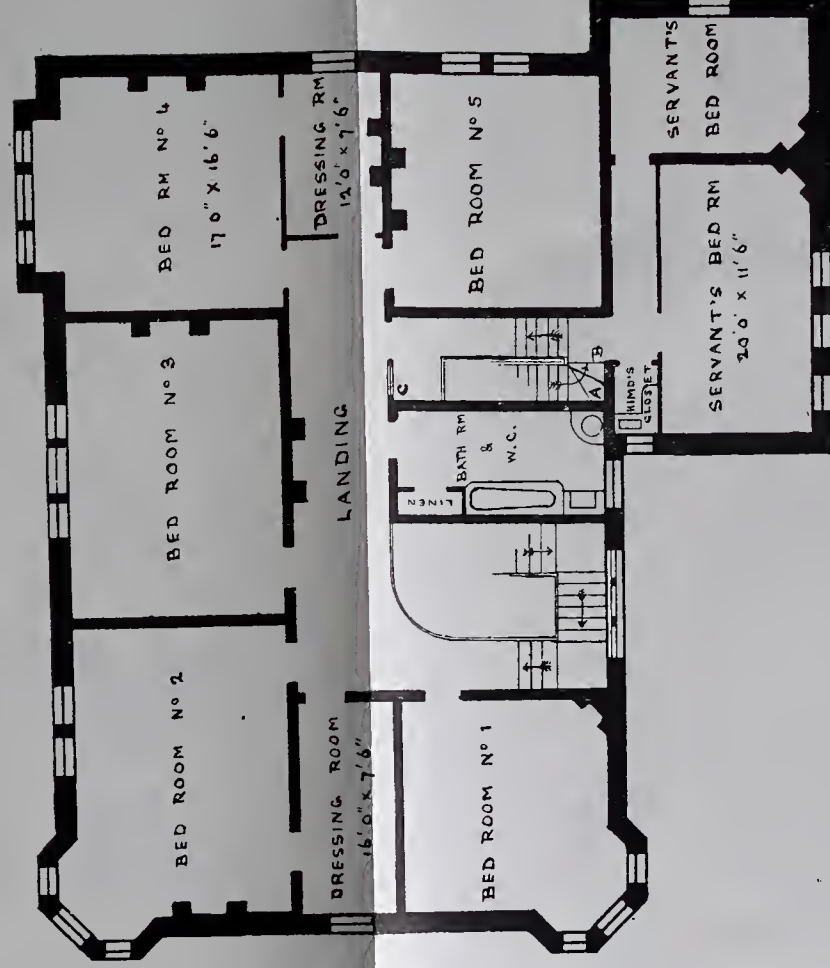
If a billiard-room is required it can be built at the side of the dining-room, out of which it will lead. A lean-to conservatory may be built, leading out of

FIG. 3.

Scale, $\frac{1}{16}$ inch equals one foot.



GROUND FLOOR PLAN.



FIRST FLOOR PLAN.

[To face page 60.



the drawing-room and backing against the high wall that encloses the yard. It is expressly to accommodate this conservatory that the drawing-room is placed on the left-hand of the house instead of on the right (in the place where the library is), for although in some cases a lean-to conservatory might be built against and leading out of it if it were placed where the library now is, such a conservatory would in many instances be in the way of the sweep of the carriage-drive leading up to the front entrance.

Attics for servants' bedrooms might conveniently be arranged over bedrooms Nos. 4 and 5, with a cistern and boxroom over the housemaids' closet and linen room, while if nurseries are required two attics might be added over bedrooms Nos. 2 and 3.

The architect will find it convenient, and, indeed, almost necessary, in planning the roofs, not only for this, but also for most of the other houses illustrated in the

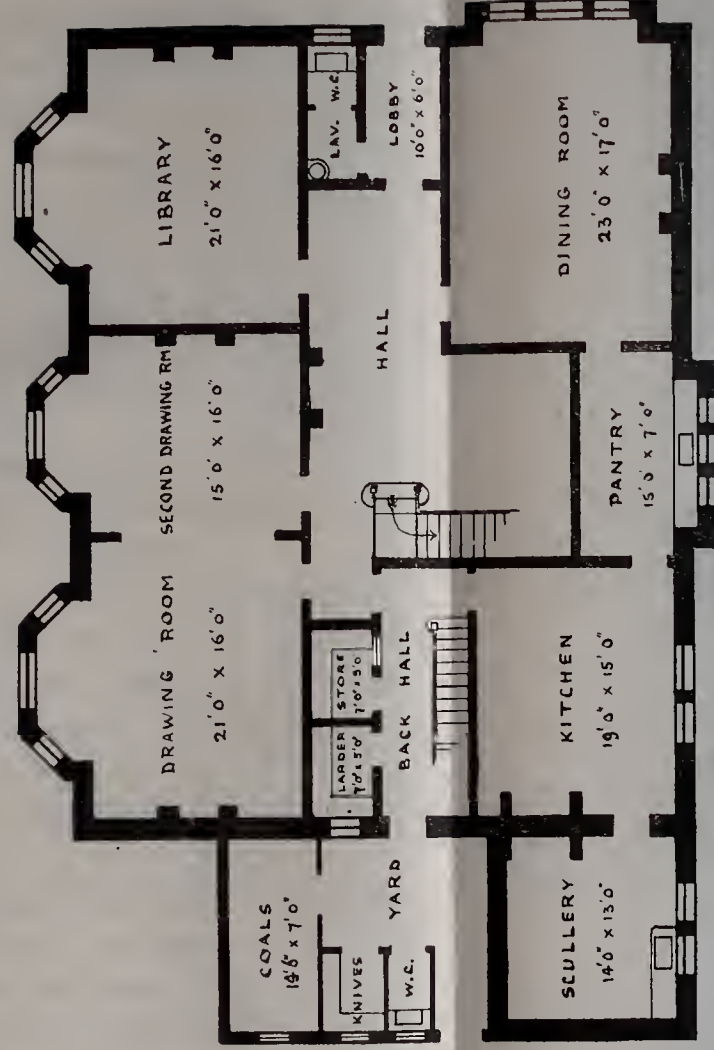
following pages, to considerably alter the dimensions of some or all of the attics in order to accommodate the style of roof he may determine upon.

A FIFTH DESIGN.

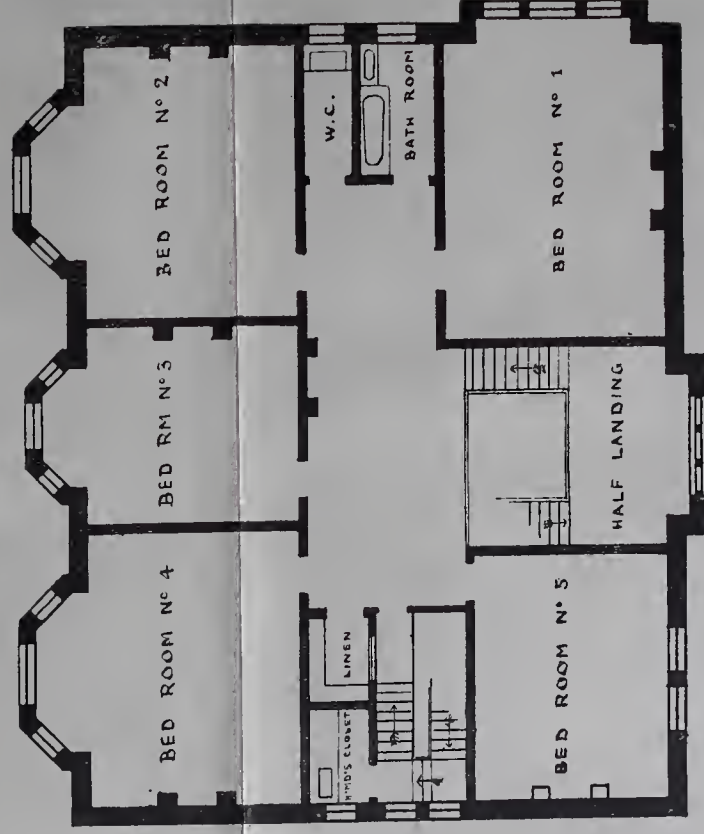
The next design (Fig. 5) differs from the foregoing ones, inasmuch as the four reception rooms and the entrance hall constitute one block by themselves, and the kitchen, pantry, and other offices constitute another block or wing. This plan may be dismissed with a very few words. The hall is lighted from above, as may be seen in the plan of the attic floor. If a double drawing-room should be required, the morning-room and drawing-room might be thrown into one; and if a billiard-room were required or a large conservatory, it could be built at the side of the present morning-room, and be entered through what in the plans is shown as the garden entrance. If it is

FIG. 4.

Scale, $\frac{1}{16}$ inch equals one foot.



GROUND FLOOR PLAN.



FIRST FLOOR PLAN.

[To face page 62.]



a conservatory and not a billiard-room that is to be built here, a door should be made by which it can also be entered through the present morning-room.

The dressing-room over the lobby and the one at the other end of the same passage may both have chimneys placed in them if required in a similar manner to that described in connection with Fig. 3.

COST OF BUILDING.

The house illustrated in Fig. 2 would cost from £2,600 to £3,000, according to the style in which it is finished. Those shown in Figs. 3 and 5 could be built for from £2,000 to £2,300 each, while the one dealt with in Fig. 4 would cost some £300 less. The foregoing figures and all those given in this book allow a fair profit to the contractor, with a distinct leaning to the side of mercy.

CHAPTER V.

HOUSES WITH THREE RECEPTION ROOMS.

WE have now to deal with a smaller style of house—one which contains only three reception rooms—and the first thing that calls for attention is that, generally speaking, as we diminish the size of the house as a whole, so should we also diminish the size of its details, that all things may appear in harmony and keeping with the general design. Of course, in particular instances and for particular reasons there will be exceptions, but it will be found best in most cases to act upon this principle, and to reduce the size of the rooms in proportion to that of the house.

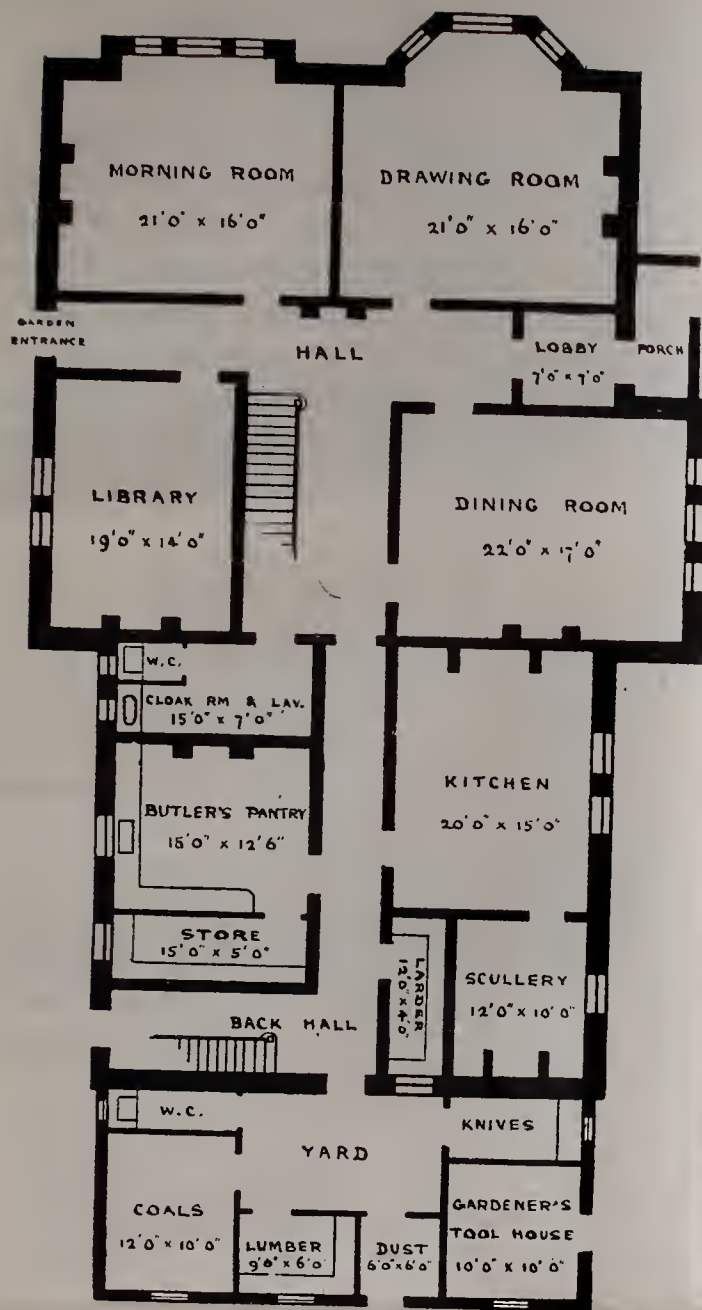
It has by no means been my intention in this work to seek to meet the requirements of every one in each style of house

with which I deal, but rather by giving a few examples of each, and inculcating in a running comment the principles upon which they are based, to enable each of my readers to prepare their own plans, merely bearing these principles in mind. Therefore, having given so many examples of houses with four reception rooms in order to illustrate a few of the variations to which that class of house is susceptible, I propose in this and most of the succeeding chapters to deal with but one or two examples in each section, and leave the reader to work out the many variations which may be made in their arrangement.

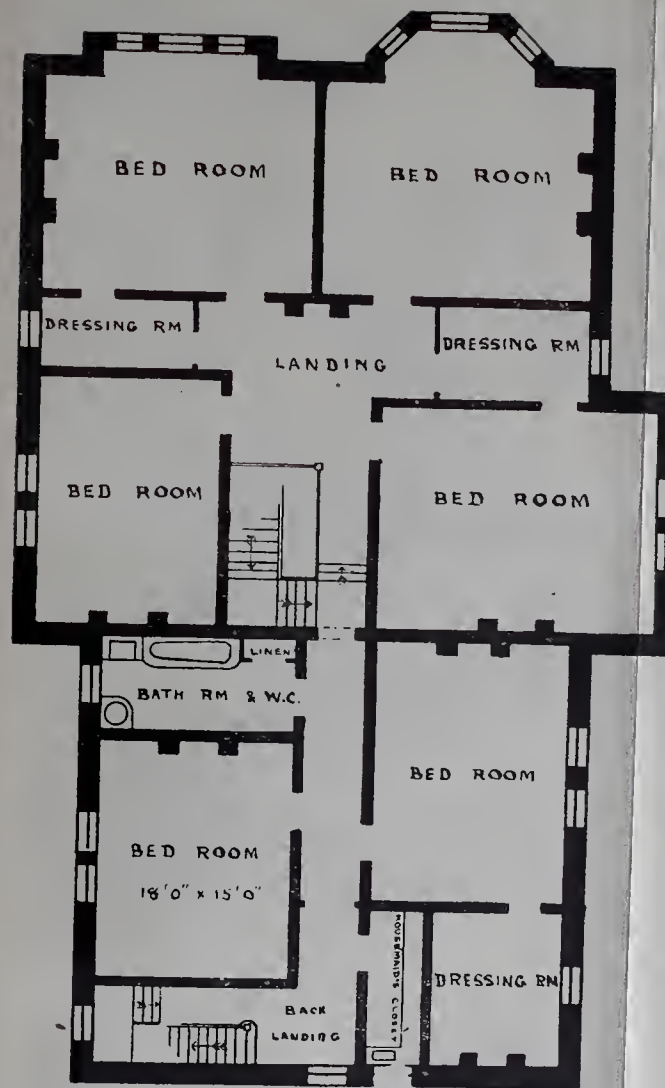
It is easy to adapt the plans of many four-reception-room houses to suit the requirements of those with only three. For instance, Fig. 5 may be altered in this way by placing the kitchen where the library originally was and curtailing the back wing of the house, as shown in Fig. 6. This would leave the three reception rooms the same size as they

were originally, which for most houses of this description would be too large. Should this be the case, the frontage of the house might be reduced by 6 or 12 ft., which would reduce the length of both the drawing-room and the morning-room by 3 ft. or 6 ft. as the case might be. In the former instance the length of the dining-room would be reduced by 2 ft. and the breadth of the staircase hall by 4 ft. (the staircase being made 6 in. narrower in order to appear in keeping with the reduced size of the house), while in the latter case the dining-room would be reduced 5 ft. in length, the staircase wing of the hall 5 ft. in breadth, and the kitchen 2 ft. in breadth. The bay windows of the two reception rooms would be correspondingly reduced in breadth.

In this adaptation of Fig. 5 it will be observed that the end of the entrance hall near the garden door is, in Fig. 6, increased from 5 ft. to 7 ft. in breadth, since it is now compelled to accommodate the



GROUND FLOOR PLAN.



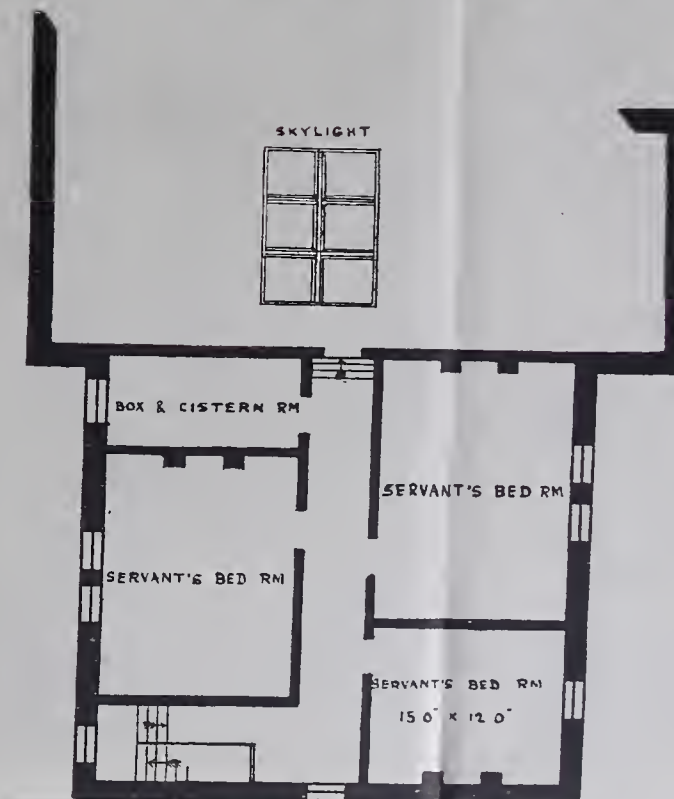
FIRST FLOOR PLAN.

FIG. 5.

Scale, $\frac{1}{16}$ inch equals one foot.



CELLAR PLAN.



ATTIC PLAN.

[To face page 64.]



lavatory and W.C., over which is the bathroom.

Attics may be added, if required, somewhat similar to those shown in Fig. 5. The other remarks which were made regarding the latter plan are equally applicable to the present one, the hall of which is, of course, lighted from above. A large glazed sash or a large fanlight will be required above the kitchen door to effectually light the corner of the passage leading to it.

ANOTHER STYLE.

In Fig. 7 we see another kind of house. The W.C. and the lavatory on the ground floor are built outside the rest of the house, and lead out of the vestibule. The butler's pantry, which is under the half-landing of the staircase, leads from the kitchen to the dining-room. Altogether the plan is not unlike that of Fig. 4. A narrow window is placed at each side of the entrance and

lobby doors, and a small seat is provided in a nook in the lobby. In many three-reception-room houses the back stairs are dispensed with, although they are shown in the two plans in this chapter.

Wherever the larder window opens upon the yard, as it does in Fig. 7, care must be taken to place the yard W.C. as far away from it as possible.

COST OF BUILDING.

The house shown in Fig. 6 would cost, if the same large dimensions as are there given were adhered to, about £1,400 to £1,800 to build. The one illustrated in Fig. 7 could be erected for between £1,300 and £1,600. The variations in price would be caused by the style in which the work was executed, and also by whether or not attics were required.

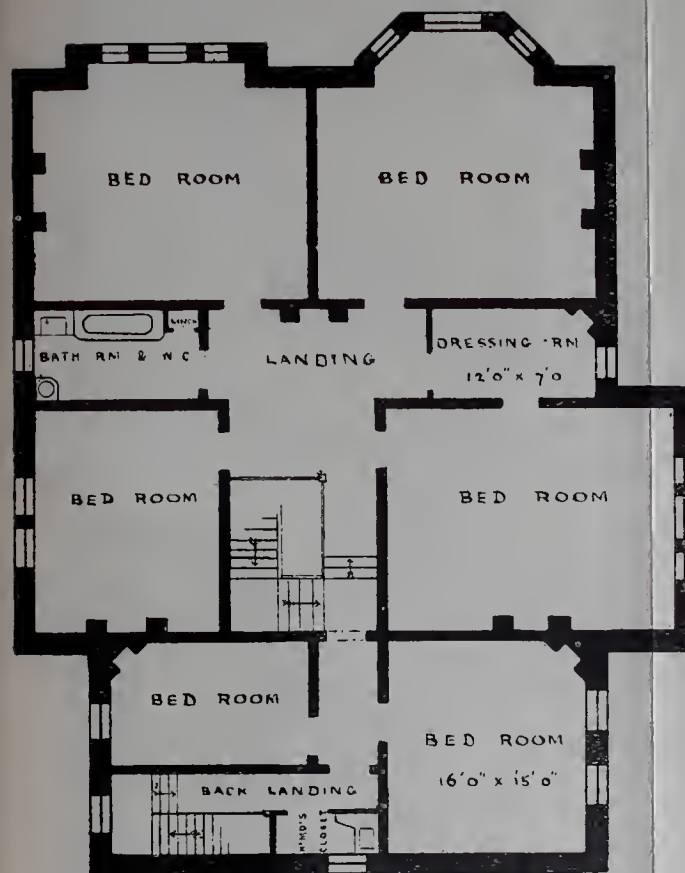
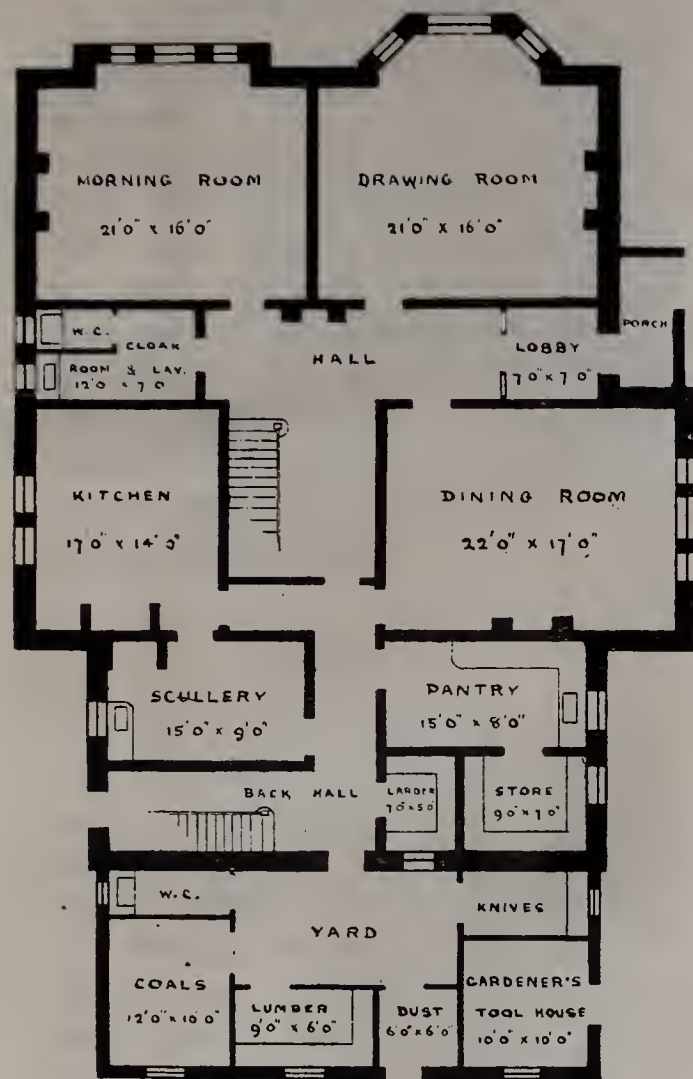
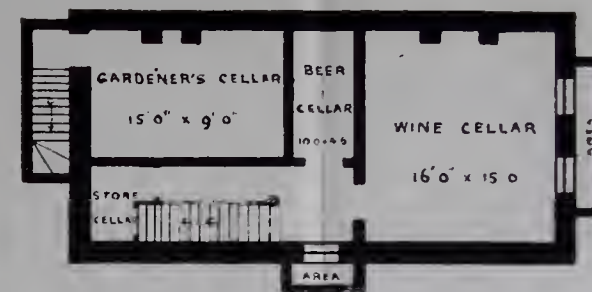


FIG. 6.

Scale, $\frac{1}{16}$ inch equals one foot.



A SUGGESTION FOR THE OUTSIDE.

[To face page 68.]

CHAPTER VI.

DETACHED VILLAS.

THE word "villa" has become so elastic a term that it may mean almost anything, from a tiny cottage to a costly mansion ; but for the purposes of the present chapter we will consider it to have only that significance which it generally possesses in the mind of the house agent or auctioneer when he describes a building by the attractive phrase "a desirable villa residence," or applies to it the even more enticing epithet, "this costly little bijou residence."

By these terms he usually means a small house with two or sometimes three reception rooms, a kitchen, scullery, and, probably, a butler's pantry, with the "usual offices," and five or six bedrooms.

There are many people whose means

do not permit them to indulge in the luxury of such houses as those dealt with in the preceding chapter, but who yet require something of the same kind in a smaller, and less expensive way; a little house standing in its own little garden, attractive to the eye, convenient in its arrangement, and not at all costly.

Thickness of Walls.

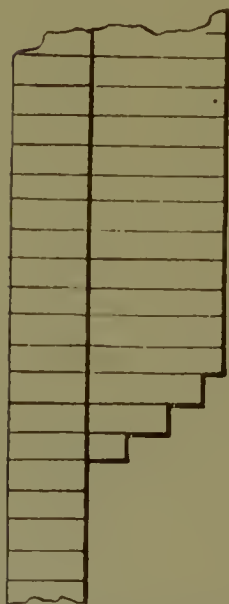
In endeavouring to reduce the cost of a building, the item which at once most strongly suggests itself as offering facilities for saving expense is the brickwork.

The exterior walls of good houses should never be less than one and a half brick thick, *i.e.*, $13\frac{1}{2}$ in. nominally, a brick being 9 in. long. It is usual, and in every way desirable, to build these outer walls in two portions with a cavity about $2\frac{1}{2}$ in. wide between them, the outer portion half a brick ($4\frac{1}{2}$ in.) and the inner one brick (9 in.) thick, the two portions being bonded or tied together

by means of pieces of galvanised iron or other suitable material. These cavity walls keep a house very dry, and make it far less liable to sudden changes of temperature, whether from heat or cold, than its neighbours with solid walls, and for these, if for no other reasons, cavity walls should always be insisted upon. The inner or partition walls of houses that have any pretensions to be substantial and well built, should not be less than one brick (9 in.) in thickness; more than this is unnecessary, and less is undesirable. Nevertheless, at the present day the municipal building authorities of most places will allow two-storied houses to be built, having outer walls but one brick (generally built as two half-brick walls with a $2\frac{1}{2}$ in. cavity between) and partition walls but half a brick thick.

It is in building just such villas as we now have to deal with, that the temptation to adopt these thin walls is most strong, and most difficult to overcome. In the

first place, nearly everybody uses them, and since they effect a very considerable saving in expense, we cannot well afford



Chimney Corbelled
out from a 9-inch
Wall.

to act differently from the majority, if we contemplate selling at any time the house we are going to build. All this and much more we tell ourselves when the advantages of substantial construction, greater warmth, and a drier house urge their claims on our attention. But we must never forget that the objections to a half-brick wall are many and great. For instance, suppose we wish to build

a fireplace in a room on the first floor of a house, and there happens to be no fireplace or chimney in the room just below it: in the case of a 9 in. wall we

can corbel out (see sketch) the chimney with confidence and perfect safety, but in the case of a $4\frac{1}{2}$ in. wall, we have to deal with something so slender and unstable that it is quite undesirable to do this.

On the whole, it is probably best in most cases to effect a compromise in this matter, retaining our one and a half brick outer walls (on which the warmth and dryness of the house so much depend) and adopting the half-brick partition walls. But let us look to it that our bricks are hard, and that we allow none of the soft dusty rubbish, so dear—on account of its cheapness—to the heart of the jerry-builder, for thus, and thus only, can we hope to have good and substantial work when we adopt half-brick walls.

A Villa with Three Reception Rooms.

Fig. 8 illustrates the most pretentious of the four villas shown in this chapter. It shows a plan very suitable for those who would obtain something as showy as pos-

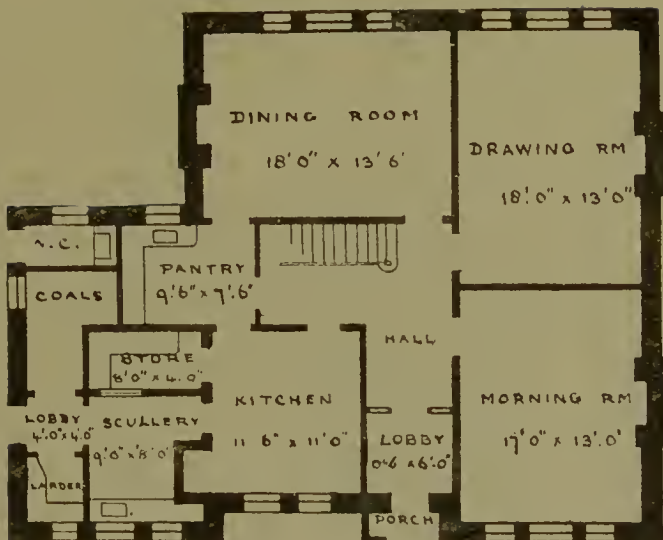
sible for their money. It has a very large frontage in comparison with its size, a fact which makes it appear larger than it really is, and it particularly lends itself to artistic, and at the same time inexpensive, architectural treatment exteriorly. It has on the ground floor three reception rooms of moderate size, a butler's pantry, kitchen and scullery, and a small store, besides a little larder, a good-sized coal house, and a servants' W.C., the two latter, unlike those in the preceding plans, being in the main building, and not forming outhouses.

In these small villas it is usual to drop several of the offices appurtenant to larger establishments, the housemaids' closet, the knife house, lumber shed, and tool house being amongst the first to go.

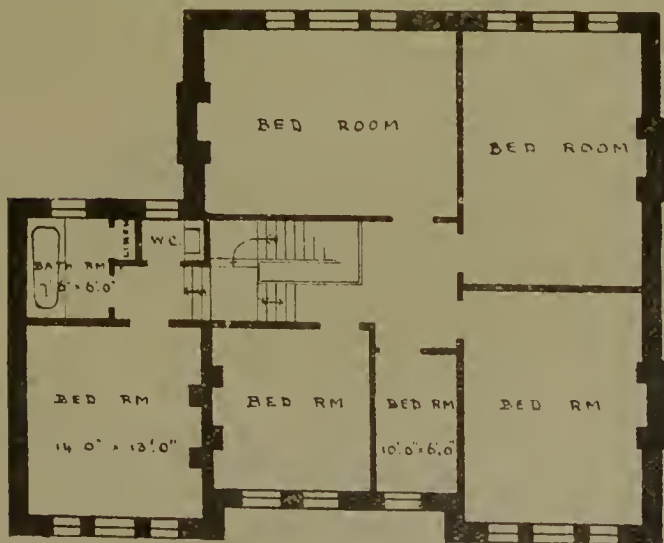
On the first floor are five fair-sized, and one small bedroom, as well as a W.C., and a bathroom with a linen closet. No attics or cellars are proposed for this plan, though they could be appropriately added if required.

FIG. 8.

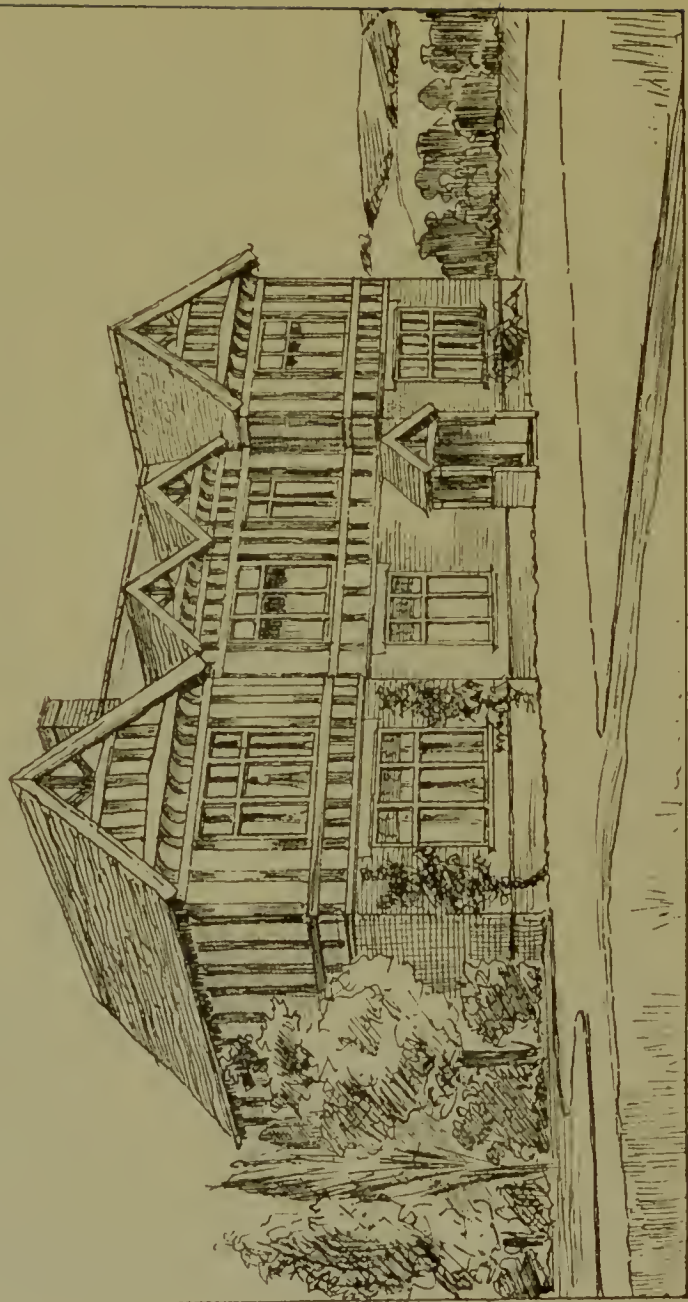
Scale, $\frac{1}{16}$ inch equals one foot.



GROUND FLOOR PLAN.



FIRST FLOOR PLAN.



A SUGGESTION FOR THE OUTSIDE OF THE HOUSE WHOSE PLANS ARE GIVEN IN FIG. 8.

A Two-Reception-Room Villa.

In Fig. 9 we see a very compact little villa which is particularly suitable for a narrow plot of ground (so common for this class of residence) where the side lights should only be utilised for windows of secondary importance. The coal house, servants' W.C., and knife house, instead of being outhouses as is customary, here form a part of the main building, but if a third reception room were required, the space occupied by them, together with the larder, would form an excellent room, while these offices could, without the slightest difficulty, be arranged as outhouses. (See Fig. 13.) There is one objection to a coal cellar being inside a house and below a bed room, as in the present plan, for if servants go there very early in the morning to get coals, the noise is apt to disturb and awaken the occupant of the room overhead.

It will be seen that an angle fireplace



A SUGGESTION FOR THE OUTSIDE OF THE HOUSE SHOWN IN
FIG. 9 AS I BUILT IT IN KENT.

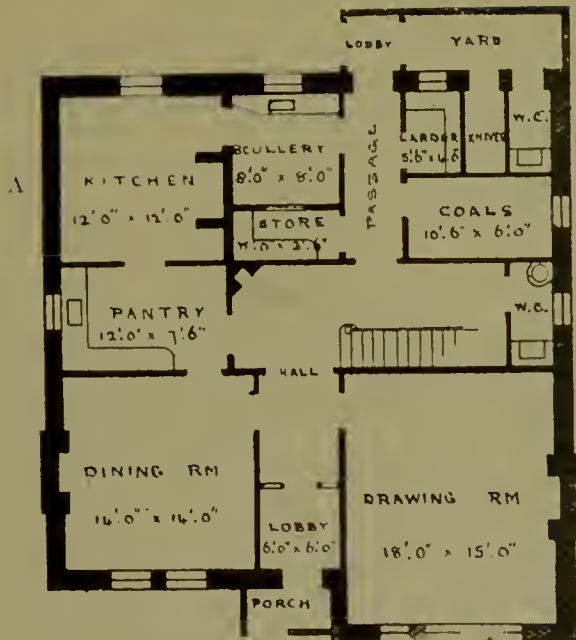


ANOTHER SUGGESTION FOR THE OUTSIDE OF THIS HOUSE.

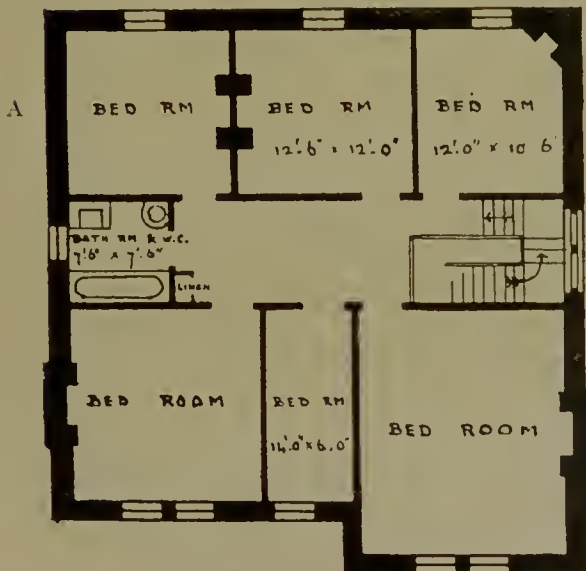
NOTE.—In both these cases the windows of the kitchen and room
above it are moved to the side of the house at A.

FIG. 9.

Scale, $\frac{1}{16}$ inch equals one foot.



GROUND PLAN.



FIRST FLOOR PLAN.

is provided in the hall, the flue from which will be carried up with that from the kitchen.

This plan is susceptible of alteration where fewer bedrooms and an altogether smaller house will suffice, as is shown in Fig. 28 (p. 131). In the case of the latter plan, the drawing-room and offices behind it might very often be advantageously moved back, so that the front wall of the drawing-room should be in line with that of the dining-room, a considerable saving in the length of exterior wall required for the house being thereby effected, with a corresponding reduction in the cost.

Another Style of Villa.

It happens sometimes that the front aspect of a house is such that it becomes undesirable for more than one of the reception rooms to look that way, while often a pretty stretch of garden at the back of the house renders an outlook upon

FIG. 10.

Scale, $\frac{1}{16}$ inch equals one foot.



GROUND FLOOR PLAN.



FIRST FLOOR PLAN.

it desirable. Such, presumably, would be the case with Fig. 8, and so it also is with the house represented in Fig. 10, which shows a building with two reception rooms and a full complement of offices on the ground floor. The W.C., pantry, larder, store, and back passage are some 2 ft. 6 in. less in height than the other rooms on the same floor, and the two bedrooms which occupy the space above them consequently lead off the first half-landing of the staircase at a lower level than that of the other bedrooms, which are four in number. Should these be found insufficient, the stairs might very conveniently be carried one flight higher, and two more bedrooms be added over those which lead from the first half-landing. By making these bedrooms lower than the others, the whole house would be of much the same height throughout. Thus, suppose the principal rooms on the ground floor to be 11 ft. high and the bedrooms above them 10 ft. 6 in., we have (allowing 1 ft. for the joists

between the two storeys) a total height of 22 ft. 6 in. Again, if the pantry, &c., be 8 ft. 6 in. high, and the two storeys of bedrooms above be the same, we find (allowing 2 ft. for the two sets of joists) that 27 ft. 6 in. is the total height of these three storeys.

The fireplace in the dining-room and that in the room above are placed on the right-hand side of the room, in order that the flue from the angle fireplace in the small bedroom may be carried up in the chimney-stack belonging to the two former rooms.

A Very Cheap Villa.

Fig. 11 illustrates a villa with two reception rooms, which may be built very cheaply, and economically, if the ground-floor rooms are low and the bedrooms are built partly in the roof as attics. In this style the villa answers admirably as a week-end cottage, and can be built plainly and substantially for as little as £335 in

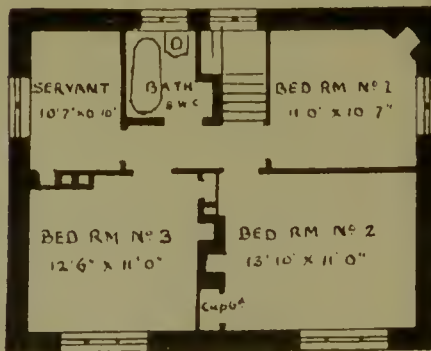
FIG. 11.



GROUND FLOOR PLAN.

Scale, $\frac{1}{4}$ inch equals one foot.

A SUGGESTION FOR THE OUTSIDE.

ANOTHER SUGGESTION FOR THE
OUTSIDE
(As I built it in Hertfordshire).

FIRST FLOOR PLAN.

many country districts. A large living or general sitting-room—which should always be a great feature in a “week-end” cottage—is found in this plan, with a comfortable old-fashioned ingle nook, and on the first floor there are four bedrooms and a bathroom.

COST.

The cost of building the villa shown in Fig. 8 in a style suitable to its size, would amount to from £950 to £1,100; that shown in Fig. 9 would cost about £100 less, while by reducing its size as shown in Fig. 28 (p. 129) a further reduction in cost to the extent of some £100 would be effected. The cost of the villa shown in Fig. 10, including a second or attic floor consisting of two bedrooms over those leading from the first half-landing, would be from £800 to £900.

CHAPTER VII.

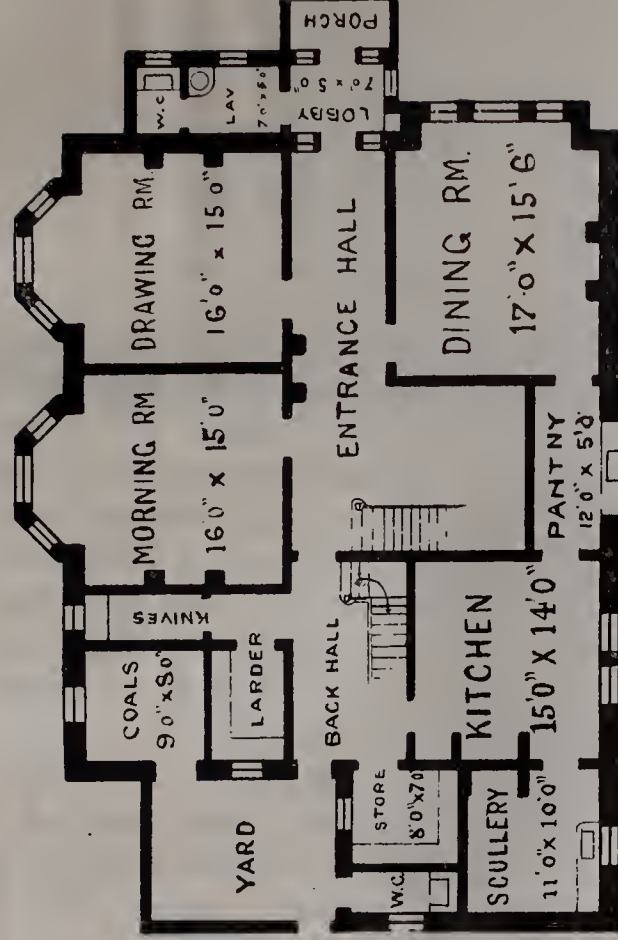
SEMI-DETACHED VILLAS.

THE semi-detached villa is a sort of hybrid between a detached and a terrace house, with great and clamorous assertions to superiority over the latter on the grounds of greater privacy, a wider frontage—usually a larger garden—and a more pronounced air of gentility.

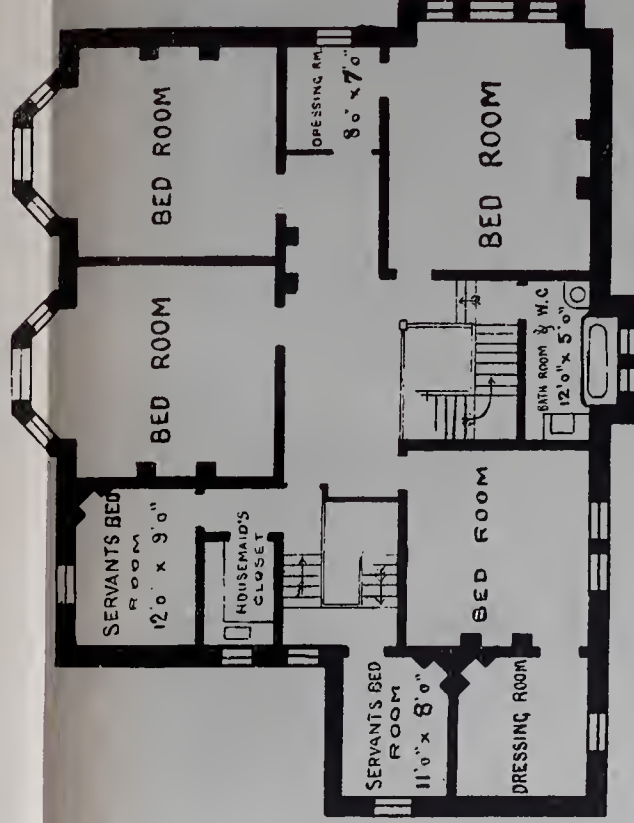
The plan shown in Fig. 10 is quite as suitable for a semi-detached as for a detached villa, and in this connection does not call for any remarks further than those bestowed on it in the last chapter. We will therefore pass on to deal with Fig. 12, which contains the plans of a pair of double-fronted, semi-detached villas of the ordinary description. On the ground floor we have

FIG. 7.

Scale, $\frac{1}{8}$ inch equals one foot.



GROUND PLAN.



FIRST FLOOR PLAN.

[To face page 70.]

dining and drawing rooms, with kitchen and all other necessary offices, while on the first floor we have three large and one small bedroom, a bathroom and W.C., a large linen closet, and a housemaid's closet, It would be well to have a fanlight over the bathroom door to assist in lighting the passage leading to it. Since the number of bedrooms here provided would generally be found insufficient for houses of this class, it would be well to add a second or attic storey over the back portion of the house, consisting of two large bedrooms, one over the bedroom above the kitchen and the other over the small bedroom, bathroom, housemaid's closet, &c. In this case the rooms in the three storeys at the back of the house would be lower than those in the front portion.

CORNER PLOTS.

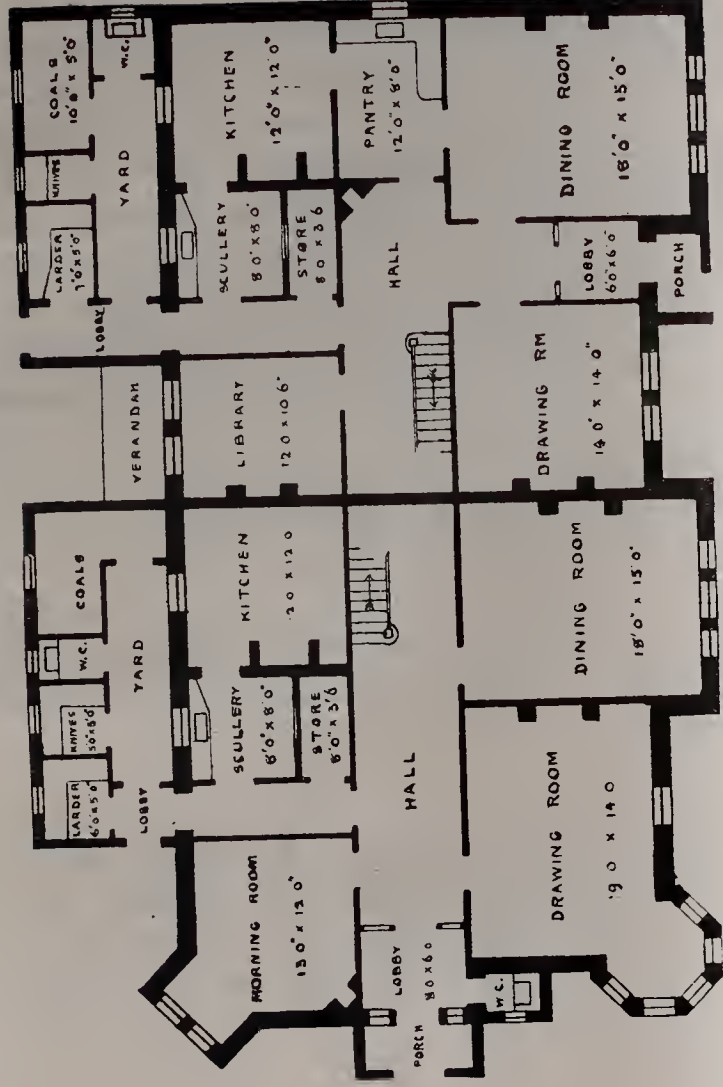
A plot of ground situate at the corner of two roads offers many advantages for

the erection of a pair of semi-detached villas. In dealing with such plots it is well to make slight differences in the arrangement of each house, and thus do away with that twin-brother look which often renders life in the "common or garden" semi-detached villa a weariness and a pain. It now becomes possible to make the entrance of one of the pair face one road and that of its neighbour face another, whereby a great point is gained, for how shall the uninitiated then tell at first—or, for the matter of that, at second—glance where your house ends and your neighbour's begins?—an argument no less forcible to the British *paterfamilias* than to his amiable consort.

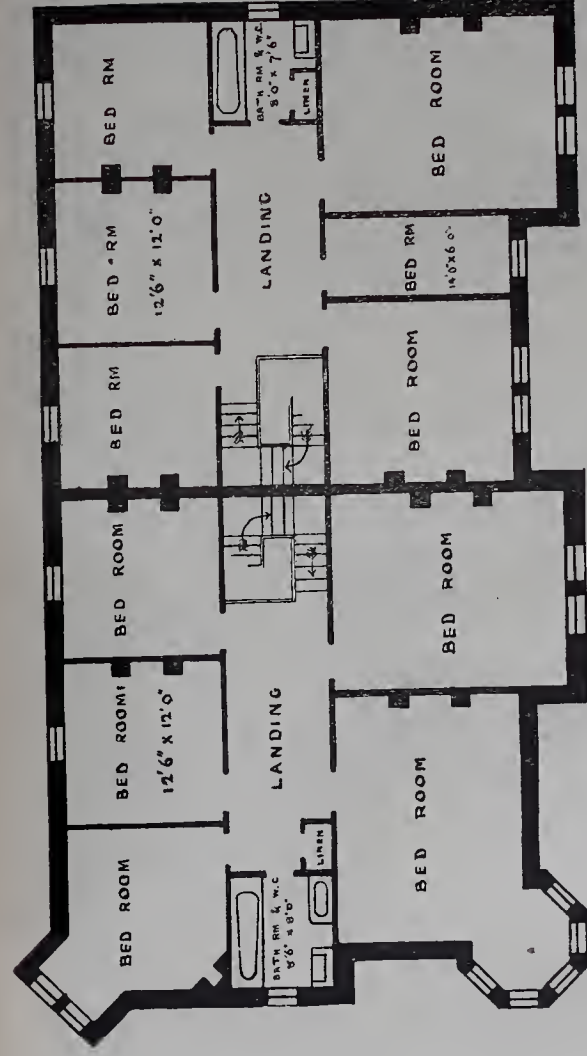
In Fig. 13 we see the plans shown in Fig. 9 slightly altered to meet the requirements of a pair of semi-detached houses intended for a corner plot. These plans call for little comment. The halls are now lighted from above by means of skylights in the ceilings, and a third re-

FIG. 13.

Scale, $\frac{1}{8}$ inch equals one foot.



GROUND FLOOR PLAN.



FIRST FLOOR PLAN.

[To face page 90.]

ception room is provided in each case, causing the larder, coal house, &c., to be now built as outhouses. In one of the villas the butler's pantry and the small room above it are, almost of necessity, done away with and the drawing-room made slightly larger, while in the other villa there is no opportunity of providing a house W.C. on the ground floor. A fireplace is provided in the hall of one of the houses, and (though not shown) one could be placed in the hall of the other also, but in this case it would also be against the back wall of the drawing-room, the flue being carried up with the flue from the drawing-room chimney.

COST.

This pair of villas could be built for 1,500 guineas, and those shown in Fig. 12, with the two attics proposed for each house, would cost about the same.

CHAPTER VIII.

TERRACE HOUSES.

As a general rule terrace houses are single-fronted, and this for several reasons, the principal one being that the land where these houses are built is usually valuable and the cost a consideration.

A DOUBLE-FRONTED TERRACE HOUSE.

The villas shown in Fig. 12 might well be built as terrace houses, in which case it would be well to reduce the length of the butler's pantry and store-room by some 2 ft., and thereby secure a wider space between the wings of adjacent houses, and thus obtain an increased amount of light. In other respects the plan could remain the same, and be

carried up any number of storeys desired. The variations of which these double-fronted houses are capable are almost endless, but since we have already seen that not many are built, we will go no further into the subject, but pass on at once to the far more common single-fronted terrace house.

A SMALL SINGLE-FRONTED TERRACE HOUSE.

In Fig. 14 we see the plans of a small house of this kind. The entrance and lobby doors must be panelled with glass and provided with fanlights above. The same must be done to the back or area door in the basement storey. There we notice first, that a chimney and fireplace may, if required, be placed in the scullery or back kitchen; secondly, that a large store cupboard is placed beneath the stairs; and thirdly, that the coal cellar is situated beneath the front steps and the

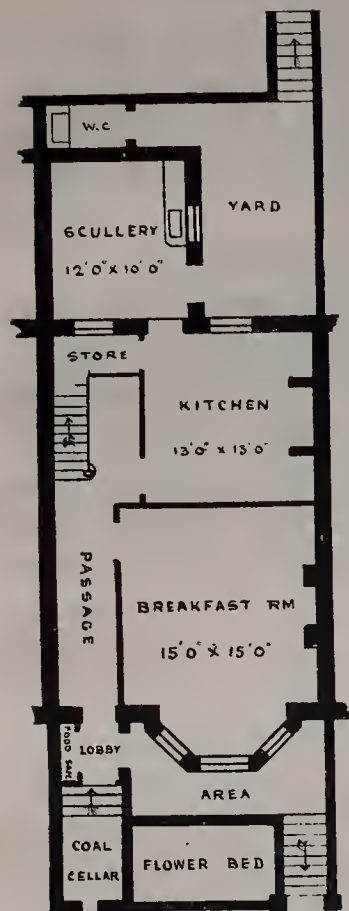
path. This is the most common position for a coal cellar in a terrace house, the coals being shunted down into it through a grating in the path; but where this plan is objected to, the back yard may be planned to accommodate a coal house. The outside W.C. in the yard is lighted and aired by means of a fanlight over the door.

The entrance hall is partly, and the landing on the first floor is entirely, lighted by means of a large window, situated above the roof of the bathroom and W.C. (which is lower than that of the rest of the house) immediately above the spot indicated by A in Fig. 14 (first floor plan). This window is opened and shut by means of pulleys and cords.

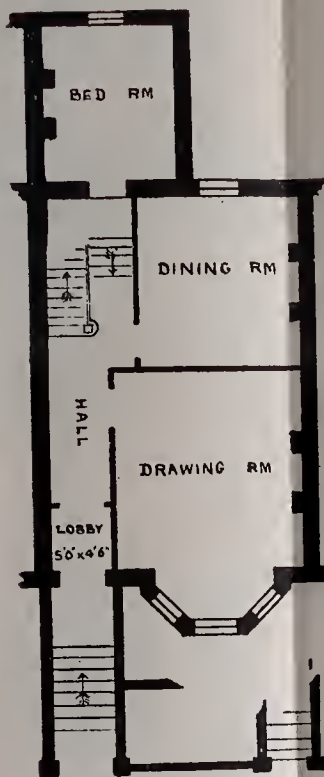
This house could be arranged for any number of storeys required; but if built with more than the three here shown, the dressing-room on the first floor should be done away with, in order that the window belonging to it might light the landing.

FIG. 14

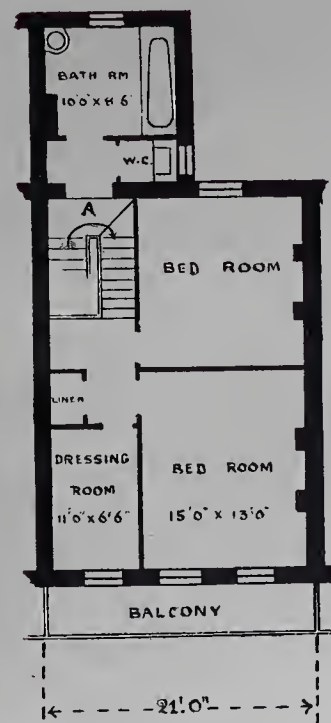
Scale, $\frac{1}{16}$ inch equals one foot.



BASEMENT PLAN.



GROUND FLOOR PLAN.



FIRST FLOOR PLAN.

[To face page 94.

Of course this would not apply in cases where that part of the building which is occupied on the basement floor by the scullery was not carried higher than three storeys.

Houses like the one just described are much in request among lodging-house keepers in certain seaside resorts which are very often crowded during a short period of the year. At such times it often happens that these persons and their families live entirely in the basement, and let all the other rooms in the house.

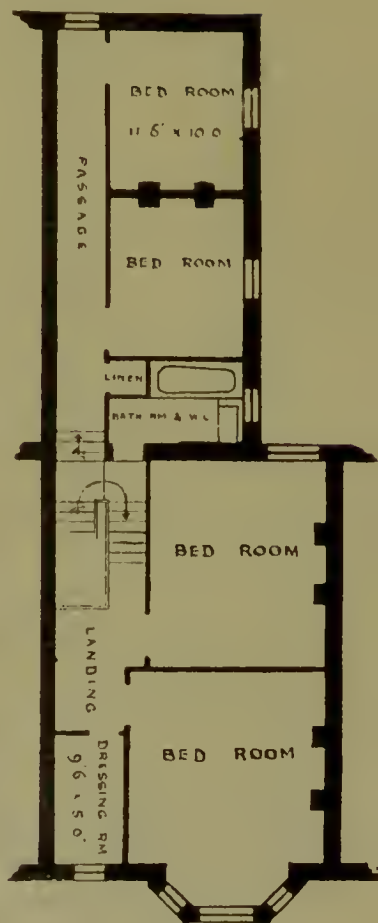
LARGER TERRACE HOUSES.

In larger houses of this description, the different parts merely require to be increased in size. Of course an infinite number of modifications and changes may be made, and in Fig. 15 we see one example of such possible alterations. The principal differences between this plan and the last consist in the kitchen and other

FIG. 15.

Scale, $\frac{1}{16}$ inch equals one foot.

GROUND FLOOR PLAN.



FIRST FLOOR PLAN.

offices being now on the ground instead of the basement floor, in the introduction of a pantry and a better larder, and in the much increased size of the back wing of the house. There can be no question as to the advantage of having the kitchen on the ground floor of the house and in a back wing rather than in the basement, since in the latter case unpleasant odours of cooking all too frequently rise and pervade the whole house, while the extra labour and trouble attendant on serving the meals upstairs is a heavy item to be considered.

On the first floor the large back wing of this house gives us two additional bedrooms. The second floor would be similar to the first; or, if it were desired to here curtail the back wing, it could be done by increasing the thickness of the partition wall between the two bedrooms (as it would now become the exterior wall of the house), and carrying the backmost bedroom of all no higher than the first floor.

CORNER HOUSES.

When a terrace house is built at the corner of a street, the light at the side of the house should be utilised for rooms and offices of secondary importance, such as sculleries, pantries, bath-rooms, lavatories, &c. Fig. 16 is given as an example of such treatment. In it we see the outline for the ground floor plan of a fairly large house, with a morning-room, dining-room, and library. In this instance the light available at the side of the house is utilised for the butler's pantry, from which a food lift descends to the kitchen, which is below the dining-room. A larder and small servants' hall occupy the back wing of the house below the library, &c.; while the scullery is immediately beneath the pantry. The servants' hall is under the morning-room, but is shorter than the latter by 6 ft., this space being occupied by a store-room which is lighted by borrowed light from the scullery.



FIG. 16.—GROUND PLAN.

Scale, $\frac{1}{8}$ inch equals one foot.

On the first floor of such a house the entire space above the morning-room and the pantry would usually be occupied by the drawing-room, but on the second floor the space above the pantry would be utilised either for a bath-room, &c., or for a dressing-room.

COST.

The house illustrated in

Fig. 14 could be built as there shown for from £400 to £500, according to the style and quality of the work ; while that detailed in Fig. 15, if three storeys high, would cost from £700 to £800.

CHAPTER IX.

COTTAGES AND DWELLINGS FOR THE WORKING CLASSES.

WHEN we begin to deal with cottages we at once find ourselves engaged upon a very wide subject. The different forms of cottages are so endless, their varying requirements so numerous, and their uses so diversified that it would require a large volume indeed to exhaust the subject. We had better, first of all, proceed to divide cottages into their several classes. Firstly, there are the urban or suburban cottages, destined for workmen and artisans employed in towns : these are usually built closely in rows, or else semi-detached or in large blocks of self-contained flats. Secondly, there are country cottages, standing in large gardens, and intended for

agricultural labourers. Thirdly, there are cottages destined for the same use as the foregoing, but expected to display more architectural beauty and picturesqueness of design, erected on the property of squires and large landowners. Fourthly, there is the lodge, situate at the entrance to the grounds of the mansions of the wealthy. And lastly, there is the "week-end" cottage which has sprung into such immense importance and popularity during the last few years. In some cases these cottages will be two storeys high, while in others all the rooms will be on one floor. Some may be expected to accommodate only two persons, while others are required to be suitable for married men with families. It will readily be seen, therefore, that a very large field is opened up for us to deal with in this chapter, and we can only look casually at a few examples, referring the reader who would go more fully into the matter to special works on the subject.

Of late years great improvements have been effected in the housing of the working classes, and the dark, insanitary hovels, which often did duty for dwellings, are fast being superseded by buildings of a vastly improved type. Moreover, whereas the poorer classes were formerly herded together like animals, it is now, happily, always considered necessary to make provision in the sleeping department of the house for the division of the sexes, so that it may now be taken for granted that any cottage intended for a married man and his family, must contain at least three bedrooms—one for the parents, one for the boys, and one for the girls.

The Urban Cottage.

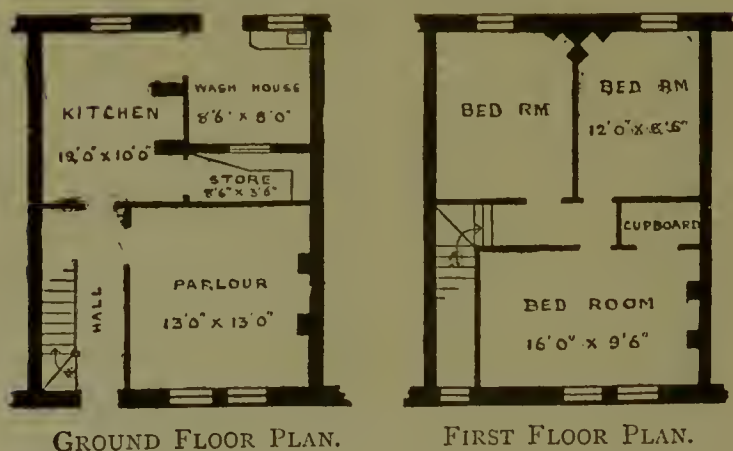
In Fig. 17 we have an example of a small double-storeyed cottage, suitable for building in a row with others of the same description, and having a parlour, kitchen, wash-house, and three bedrooms. This is

one of the cheapest kind of cottages it is possible to erect.

The habits of the lower classes are often so uncleanly that it is undesirable to place the W.C. inside a cottage where such an

FIG. 17.

Scale, $\frac{1}{16}$ inch equals one foot.



arrangement can be avoided. One should therefore be provided in the yard, and, as a general rule, it is well to place it at some slight distance from the house.

In this house the front door should be provided with glass panels, and a fanlight

above to lighten the hall; while a fanlight over the door of the front bedroom would also be necessary to assist in lighting the end of the passage leading to it.

In Fig. 18 we see a pair of single-storeyed

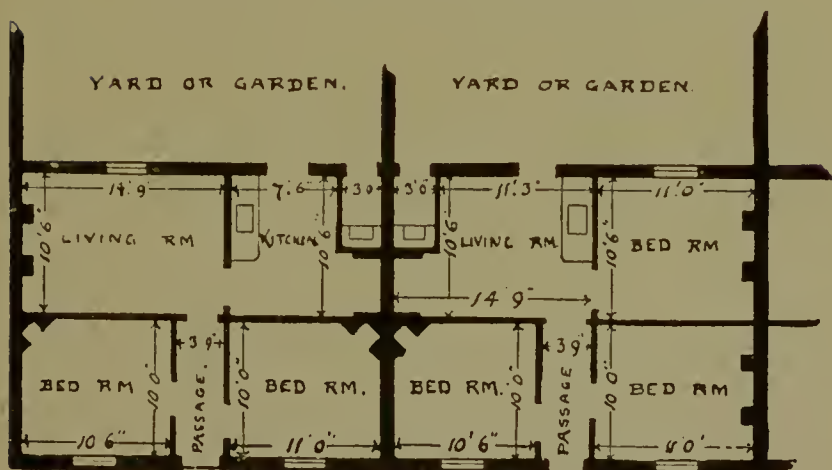


FIG. 18.—GROUND PLAN.

Scale, $\frac{1}{16}$ inch equals one foot.

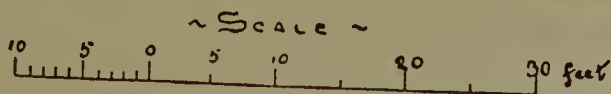
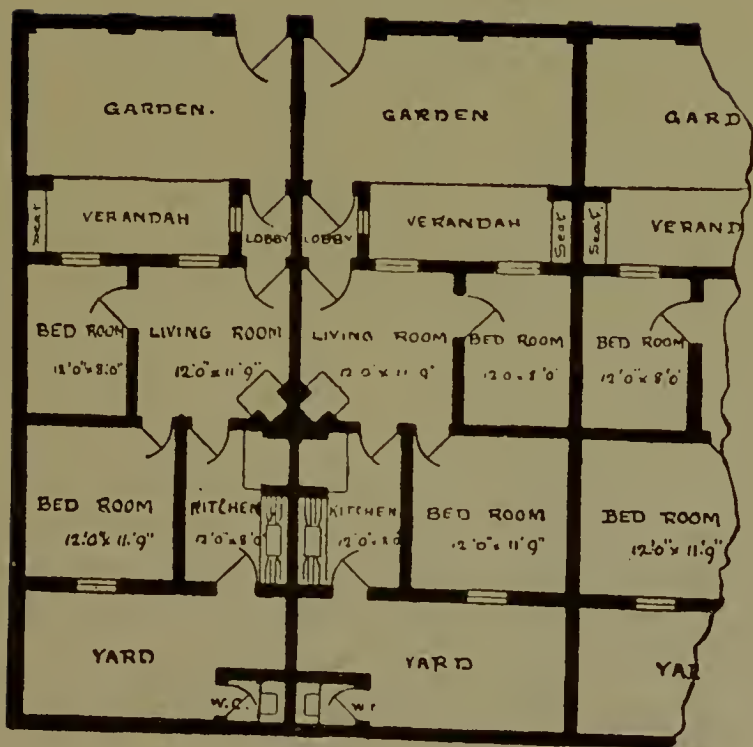
cottages suitable for building in terraces or semi-detached, the accommodation afforded by each consisting of three rooms and a kitchen. In cottages of this size and character, it is usual in this country to combine the kitchen and living-room in

one, as seen in the right-hand cottage in Fig. 18, and by this plan an extra bedroom is obtained. The alternative treatment providing a separate kitchen and parlour or living-room is shown in the left-hand cottage.

The single-storeyed cottages shown in Fig. 19 are also suitable for building in terraces. They are, however, offered as affording the maximum of accommodation with the minimum expenditure of material rather than as examples of correct planning. Nevertheless they are extremely popular with tenants, and in Africa, where I have had about a hundred erected for various clients, I have, strangely enough, found them much preferred to the cottages illustrated in Fig. 18, though the latter, in my opinion, are certainly superior. For this climate fireplaces in the bedrooms would be advantageous.

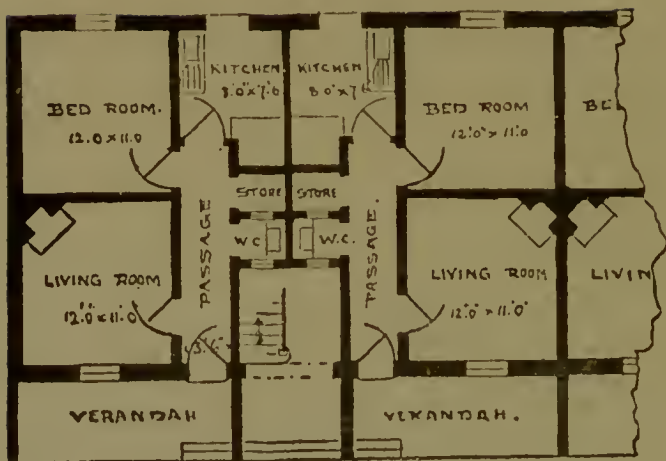
Figs. 20 and 21 represent respectively plans of blocks of two and three room tenement houses for working men. Each

FIG. 19.

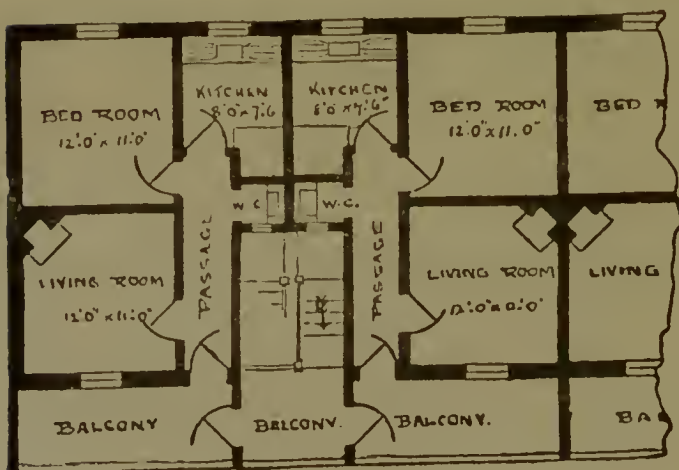


GROUND FLOOR PLAN.

FIG. 20.



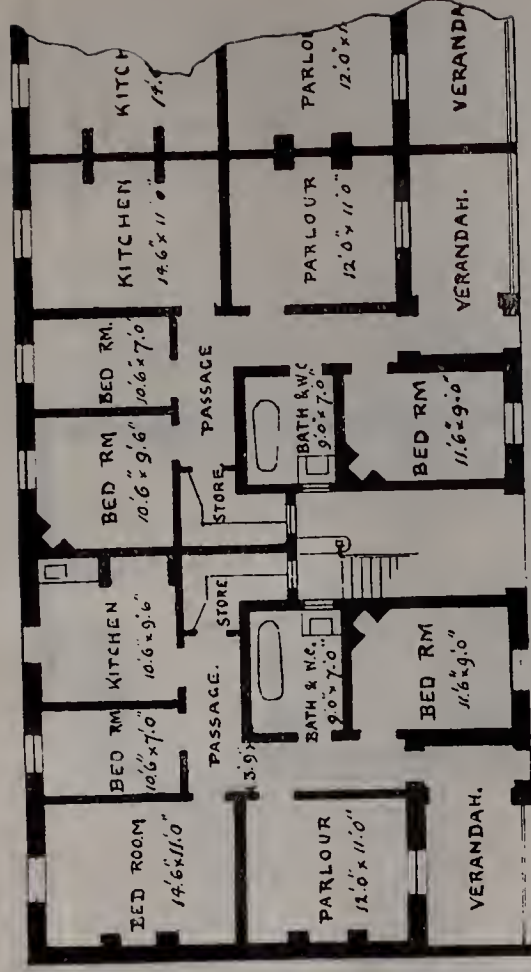
GROUND FLOOR PLAN.



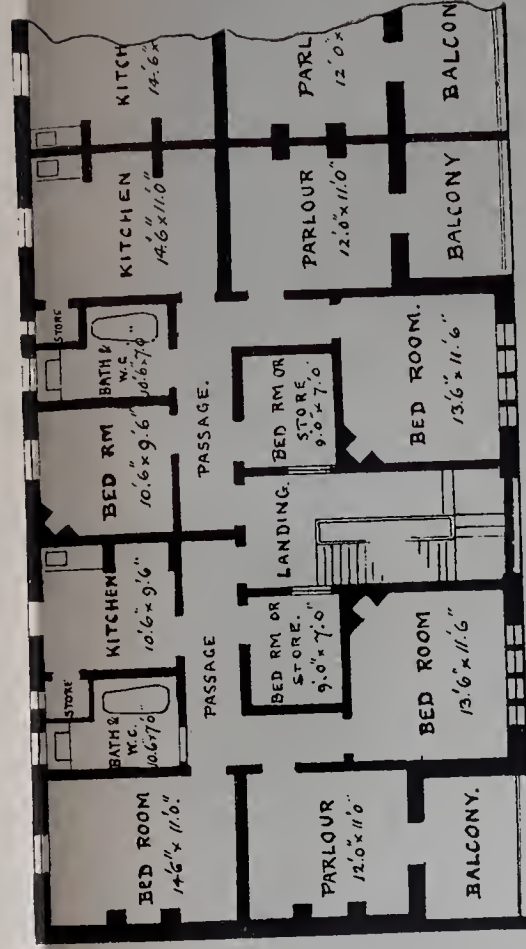
FIRST FLOOR PLAN.

FIG. 21.

Scale, $\frac{1}{4}$ inch equals one foot.



GROUND FLOOR PLAN.



FIRST FLOOR PLAN.



house is so entirely self-contained that the greatest privacy is obtained for the inmates, always a great point to be studied in tenement houses.

Rural and "Week-End" Cottages.

I propose closing this chapter with the plans and description of a one-storeyed and

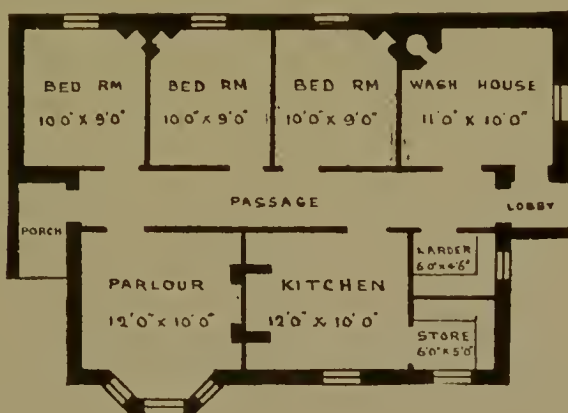


FIG. 22.—GROUND PLAN.

Scale, $\frac{1}{16}$ inch equals one foot.

one two-storeyed rural cottage, not attempting to enter upon the multitudinous variations which this style of cottage opens up

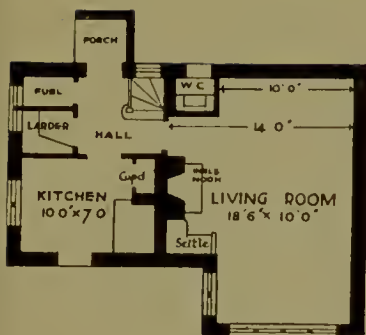
to us. Both are suitable either for labourers' cottages (if plainly built), or if finished more elegantly both inside and out they will be found very charming little "week-end" retreats for the better classes.

In Fig. 22 we see a cottage with parlour, kitchen, wash-house, larder, store, and three bedrooms, all on the same floor. A W.C. and the necessary outhouses can be built either adjoining the cottage or at some little distance from it. The passage will be lighted from the entrance doors at each end, which should have glass panels and fanlights above.

COST.

Fig. 23 represents a double-storeyed cottage of a most economical type. Built very plainly as a working-man's home it would cost £155, or fitted up very elegantly as a "week-end" cottage it could be built for £200, or even less. The villa shown in Fig. 11, and costing from £320 to £340

FIG. 23.



GROUND FLOOR PLAN.

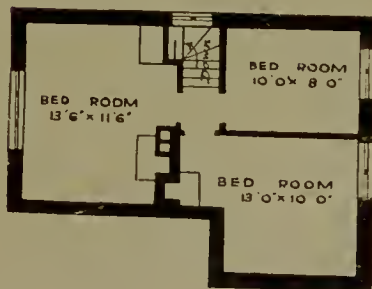
Scale, $\frac{1}{16}$ inch equals one foot.



A SUGGESTION FOR THE OUTSIDE—
AS A THATCHED COTTAGE.



A VIEW OF THE LIVING ROOM.



FIRST FLOOR PLAN.

is also very suitable for a larger form of "week-end" cottage.

The cottage shown in Fig. 17 would cost, if substantially built and well but plainly finished inside, £215 to £240, but if built with thin walls, and interior work of poor quality—as unhappily is usual in the case of such cottages—the cost would be very appreciably less. The cottages shown in Figs. 18 and 19 would cost from £110 to £130 each to build in country districts. With regard to the cottage illustrated in Fig. 22, so much depends on the locality, the materials, and the exterior design that it is difficult to give an accurate estimate for it, but, roughly speaking, it would cost £300.

CHAPTER X.

STABLES.

IN many large establishments stables of the most luxurious and costly description are now erected, but since these are only attainable by the few we will deal exclusively in this chapter with the simpler descriptions of stabling.

Site.

It is quite as important to select a suitable site for a stable as for a dwelling-house. Drainage is a most important matter. Both the surface-water from the land and the sewage from the stables must be efficiently carried off. Clay is the worst foundation for a stable ; sand, gravel, or chalk the best.

A stable should never be erected too near a dwelling-house. It is a constant source of annoyance in more ways than one, and when sufficient space cannot be allowed between the house and the stable it is best to build it on a separate plot of ground elsewhere.

Size of Loose-Boxes and Stalls.

It is very desirable to have at any rate one loose-box in even the smallest stable. Many persons insist on having equal numbers of stalls and boxes. A loose-box may be of any size from 9 ft. to 15 ft. square; the larger it is the better. A stall should be 6 ft. wide; this is sufficient for a large horse, which could not safely be placed in a 5 ft. 6 in. stall such as is sometimes used for a small animal. When large horses are placed in these narrow stalls they are very apt to injure themselves.

Ventilation and Light.

Ventilation and light are very important matters, and there should always be abundance of both, care being taken, however, that neither are so situated that any draughts may find their way into the vicinity of the horses' eyes. A convenient method of lighting stables is by means of small windows placed over each stall at a considerable height from the ground.

The Yard.

The paved yard should be covered above in order that carriages may be cleaned in wet weather. The pent or glazed cover for this purpose should project fully 8 ft. from the stable.

The Harness Room.

The harness room should always be provided with a fireplace, which will often be called into requisition. In small stables the harness is often kept in the coach-

house or in a partition of the hay-loft, and sometimes even in the stable itself.

The stable dung is sometimes kept in a heap in some corner of the garden—an objectionable plan—and sometimes in a pit near the stables. Other arrangements

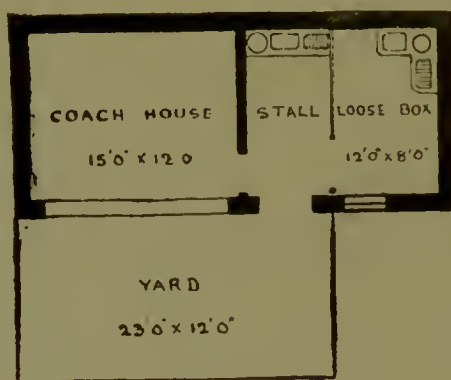


Fig. 24.

Scale, $\frac{1}{16}$ inch equals one foot.

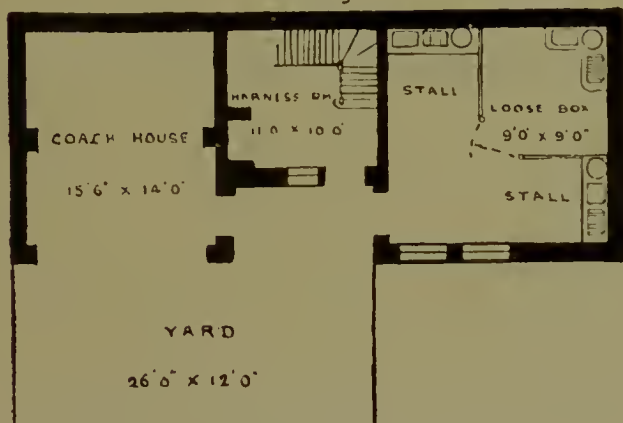
are often adopted, and therefore in the following plans it has been left an open question how the stable manure shall be disposed of.

Stable for Two Horses.

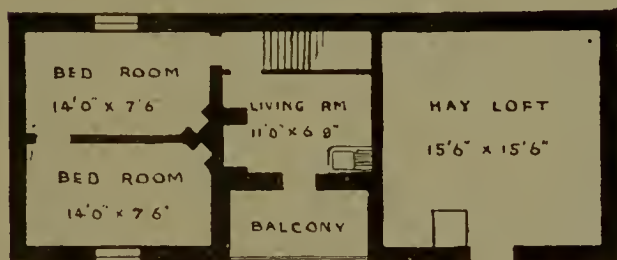
Fig. 24 shows the plan of a small stable for two horses, with a coach-house. There

are no living-rooms for the man in this case. The doors of this and of the other coach-houses dealt with in the present

FIG. 25.



GROUND PLAN.



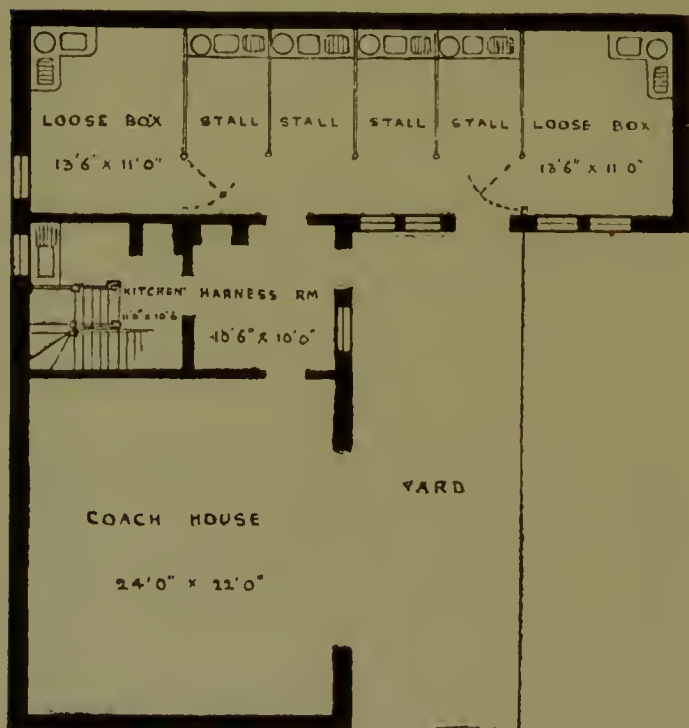
FIRST FLOOR PLAN.

chapter could advantageously be provided with small panels of glass near the top to

give light. The hay-loft, which is not here shown, will be over the stable. A dung pit could be placed on the left-hand

FIG. 26.

Scale, $\frac{1}{16}$ inch equals one foot.



GROUND PLAN.

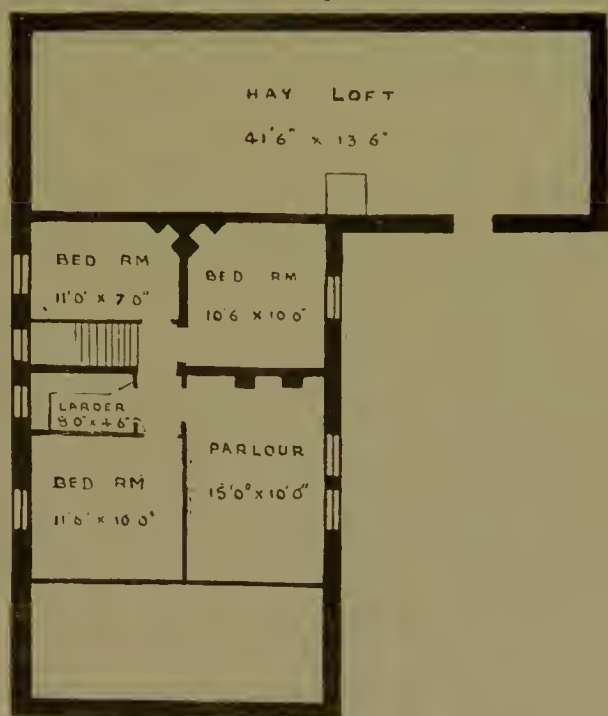
side of the paved yard. Water and gas must, of course, be laid on to every stable.

Stable for Three Horses.

In Fig. 25 we have a rather larger example of stabling suitable for three

FIG. 26.

Scale, $\frac{1}{8}$ inch equals one foot.



FIRST FLOOR PLAN.

horses, and having convenient rooms for the accommodation of a coachman and

his wife. A sink or lavatory-basin might appropriately be placed in the harness room for the use of the coachman.

Sometimes the cooking for the coachman's family is done in the harness room, but this is very undesirable for many reasons, and the cooking stove should therefore be placed elsewhere.

A Larger Stable.

In Fig. 26 a stable to accommodate six horses is shown. It contains four stalls and two loose-boxes. It will be noticed that there is a small kitchen at the back of the harness room. The position of the W.C. will so much depend on which side the stables are approached from that its locality is not definitely indicated.

CHAPTER XI.

HINTS ON LAYING OUT GARDENS.

THIS chapter does not pretend to deal with advanced landscape gardening, but simply endeavours to give a few suggestions for laying out plots ranging in size from about half an acre to two acres. Above this size the skill of a good landscape gardener will be requisite to ensure success, while less than half an acre is so small a piece of ground that it admits of scant variations in the arrangement of the garden.

First of all we have to deal with the relation of the size of the house to that of the garden, for nothing looks worse than to see a very large house built on a very small plot of ground. The houses shown in Figs. 2, 3, 4, and 5 would look

ungainly if built on plots of less than three-quarters of an acre, while one acre would be better ; indeed they are all suitable for building in quite large grounds of several acres' extent. The houses dealt with in Chapter V. require plots of not less than half an acre each, three-quarters of an acre or even one acre being a very suitable size for this class of house. A plot half an acre or somewhat less in extent will very suitably accommodate the pairs of semi-detached villas shown in Chapter VII. ; while from a quarter to a third of an acre is a good size for the detached villas illustrated in Chapter VI., though half an acre is better.

The Carriage-Drive.

The first thing that arrests our attention on approaching a house is the carriage-drive leading up to it. This may range in breadth from 10 to 15 ft., 12 ft. being the best width in most instances. Its

sweep should be about 30 ft. in diameter, which is sufficient to allow a large carriage to be easily turned in it. The drive itself should not be straight, for this would give a stiff and most unsightly appearance to the place, but it should rather be elegantly curved ; indeed stiffness is the thing which, above all others, should be avoided in landscape gardening. “ He is a duffer,” said Dean Hole, one of our most appreciative and discriminating gardeners in these latter days,—“ He is a duffer who thinks to give the idea of magnitude by exposing the whole extent of the ground to the spectator, who maintains a rigid uniformity, ‘balancing’ bed against bed, tree against tree, conducts the visitor on straight walks from corner to corner, and finally embellishes and crowns his stupidity with a hideous arbour, or a huge construction of iron arches and chains, on which the roses, for which it was designed, indignantly decline to grow. As for a quiet nook in which to think or read, a sun-trap, or

a shelter from wind or heat, an ambuscade for 'I spy' and 'hide-and-seek,' or a spot which might embolden a bashful lover to whisper the avowal of his love, you might as well try to conceal yourself in the middle of the road, or propose on the top of an omnibus.

"There can be no stereotyped designs for a garden, because the plan must be adapted to the extent, formation, and surroundings of the site, but the laws as to a natural grace and congruity, as to outline, variety, and the planting out of boundaries must be observed."

Hedges.

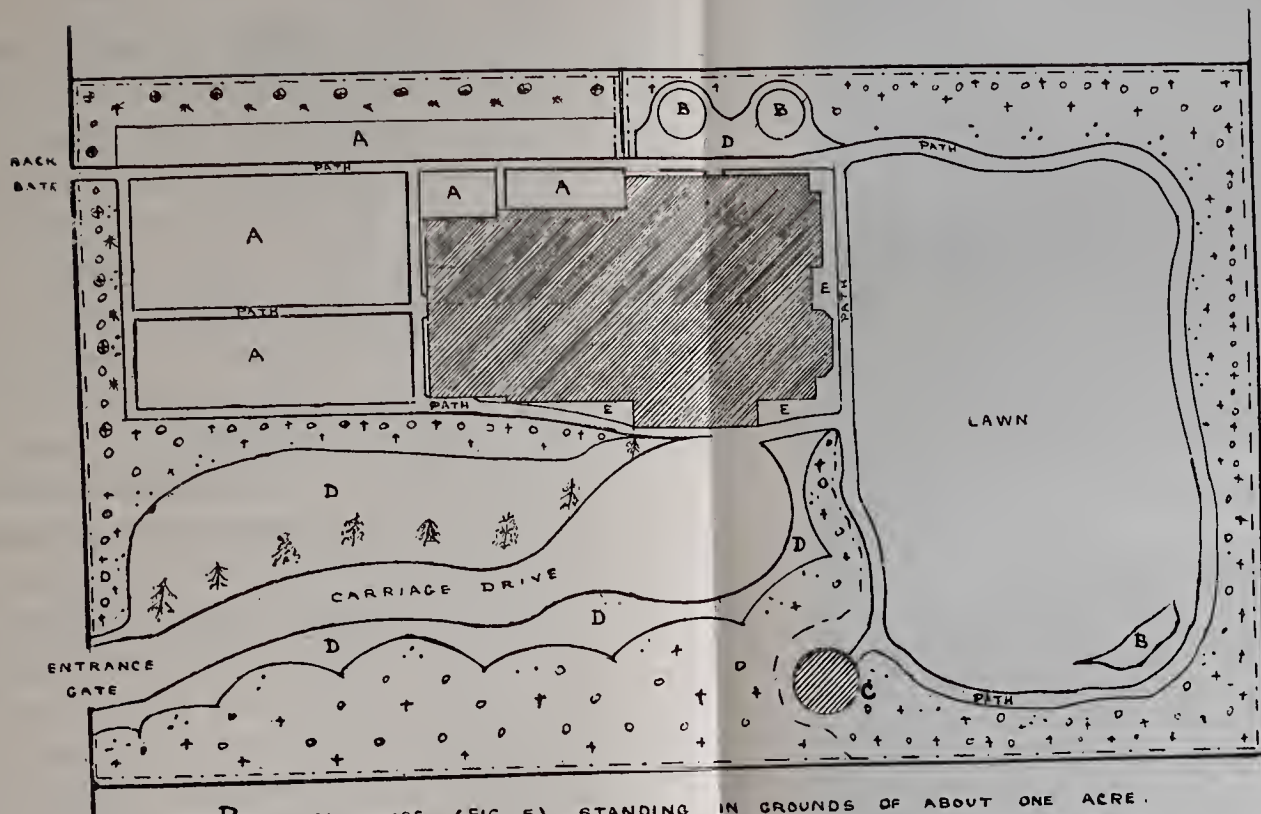
The grounds of a house will almost always, at least in part, be surrounded by a hedge. Holly is probably the best of the evergreens for this purpose, but it takes a long time to grow. Privet is quick growing and in every way desirable. Laurel makes an excellent hedge when

carefully pruned, well watered in dry weather, and thoroughly manured in winter, but it quickly goes wrong when neglected. It is best to plant a hedge at a distance of fully one foot from the sides of a plot, and where these sides happen to be raised banks the distance may with advantage be increased to fifteen or eighteen inches, because the edge of these banks becomes very dry and so affords little support for the roots of the hedge.

Planting the Borders.

A border, varying in width from 9 ft. upwards, is often left round the sides of a site, and is intended to be planted with trees and shrubs to screen the house not only from the road, but also from the other sides. For ordinary purposes a border of this description, from 10 to 12 ft. wide, will be found very serviceable, though the wider a border is the more desirable it is in many ways. A narrow

border (only 10 ft. across) is represented at A B, Fig. 27. Such borders are often planted with a row of deciduous trees (*i.e.*, those that lose their leaves in winter), and with two rows of shrubs, evergreen and deciduous, of various sizes, planted in two perfectly straight lines, much resembling a regiment of soldiers. An arrangement of this kind is certainly neither artistic nor ornamental. A better plan, and one shown in Fig. 27 (more especially in that border which screens the kitchen garden from the road), is to have two rows of deciduous trees, one planted some 2 ft. 6 in. or 3 ft. from the side of the plot, with the trees placed about 15 ft. apart in the row, and the other having the trees spaced the same distance apart, but planted alternately between those in the first row, at a distance of 6 ft. from the side of the plot. The second row is destined to be the permanent one, and therefore all the best trees should be planted in it, the inferior ones being con-



PLAN OF HOUSE (FIG. 5) STANDING IN GROUNDS OF ABOUT ONE ACRE.

A, VEGETABLE BEDS. B, ROSE BEDS. C, SUMMER HOUSE. D, GRASS.

E, FLOWER BEDS. + DECIDUOUS TREES. O EVERGREEN TREES. ● DWARF SHRUBS.

⊕ STANDARD FRUIT TREES. * BUSH OR PYRAMID TREES. - - - HEDGE.

FIG. 27.

[To face page 126

signed to the row closest to the side of the plot, since they will be taken up and thrown away in a few years, so soon as the trees in the permanent row shall have grown sufficiently large to warrant the removal of the others. On either side of the deciduous trees in the permanent row an evergreen tree or shrub, which will in time attain a large or medium size (such as hollies, pines, conifers, arbutuses, &c.) may be planted. In the extreme front of the border small or dwarf-growing shrubs, both deciduous and evergreen, may be planted in groups of three, the spaces between these groups being utilised for flowers. When the individual plants in the clumps of shrubs grow too large, two plants should be removed from each clump. In a similar manner the trees throughout the borders may be thinned out.

On one or both sides of the carriage-drive specimen trees may be planted (such are shown in Fig. 27 on the left of the drive). Avenues of deciduous or forest

trees look extremely well at the sides of long drives and the approaches to mansions, but in smaller and less pretentious places their room is best occupied by ever-green trees or large shrubs. In localities where such things thrive, some of the choicer pines and conifers look exceedingly well as specimens. In very small places standard roses may be substituted for them.

Fig. 27 represents only one of the innumerable ways in which gardens of its class may appropriately be laid out. It shows a site of about one acre in extent, with the house shown in Fig. 5 built upon it. Lack of space prevents us from here entering more fully into this most fascinating subject.

CHAPTER XII.

HINTS ON PLAN DRAWING.

BEFORE beginning to draw out a plan, the amateur designer must very clearly get into his mind the positions of the various rooms, passages, and other details, and supposing he does not feel very sure about all these matters, he had best first of all draw out a plan roughly, merely indicating the position of the rooms without troubling himself very much about their dimensions. He should then mark the proposed length against the wall of each room, &c. After this he should add the numbers together, allowing about 1 ft. or 6 in. for the breadth of each inner wall, according as to whether it happens to be a half-brick or a whole brick thick, and he will then obtain the length and

breadth of the house. Thus in Fig. 28, which is only a reproduction of part of Fig. 9, but with the offices curtailed, $14 \text{ ft.} + 6 \text{ ft.} + 15 \text{ ft.} + 6 \text{ in.} + 6 \text{ in.} = 36 \text{ ft.}$ = length of front of house, and $14 \text{ ft.} + 7 \text{ ft.} + 12 \text{ ft.} + 6 \text{ in.} + 6 \text{ in.} = 34 \text{ ft.}$ = length of side of house.

Having decided upon these measurements, he can begin to draw out his plans. He will require a boxwood foot-rule, divided to sixteenths of an inch, a pencil neither too hard nor too soft (an "H.B." is best), provided with a good point, a very fine or else a "crow-quill" pen, ink, and paper. It is desirable that the paper be ruled with faint lines.

For drawing the architect uses various instruments to ensure exactitude and to facilitate the work, but it is unlikely that the majority of those for whom this work is intended will be acquainted with these things or conversant with their uses. In preparing most of the illustrations for this book I therefore dispensed with all

drawing instruments except those just enumerated, with which, in the first instance, I drew the plans.

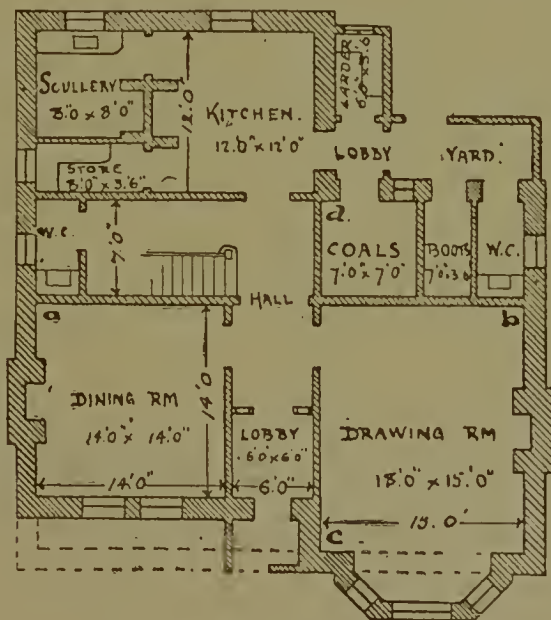


Fig. 28.

Scale, $\frac{1}{8}$ inch equals one foot.

Having calculated the length and breadth of the house, the designer should now take his pencil and rule lines corresponding in the scale determined upon to

these distances, and he should take care that the whole drawing when completed shall be as nearly as possible in the centre of his sheet of paper. These lines will represent a square or oblong, around which the outer walls of the house should next be ruled. Then the main divisions of the house must be ruled in (*i.e.*, from *a* to *b* and from *c* to *d*, Fig. 28). Next, the other divisions of the rooms should be added, and those portions of the main divisions which are superfluous must be removed. Then any parts which project or recede from the rest of the house can be added or removed, as the case may be, and that portion of the outer wall which is no longer wanted, and is in Fig. 28 represented by a dotted line, can be rubbed out. Then the staircases can be put in, and then the fireplaces, after which the yard, outhouses, &c., may be added. Next, the windows and doors can be marked out, after which the whole should be gone over with a pen and ink, and

when thoroughly dry an indiarubber may be used to get rid of any superfluous pencil marks and lines that may still remain. The ground floor plan will then be complete.

In the first floor all the main features and many of the details of the ground floor will be retained, so that much trouble is saved when the ground floor plan has been drawn upon a double sheet of paper, because in that case all the main points may be pricked through with a pin and the spaces between them on the lower sheet joined together with a pencil and ruler. Before pricking off the plan in this way it is necessary to draw the flat end of a ruler along the back of the sheet of paper so as to thoroughly flatten it out. By inserting a piece of paper between the two pages, and carefully holding it in its place, the skeleton of the second floor may be produced at the same time as that of the first.

The tyro will most likely find some

difficulty at first in deciding the exact size of the rooms, passages, &c., in his designs. This difficulty can only be overcome by measuring other rooms of about that size which he wishes to reproduce in his plan. If he is planning a dining-room, let him measure the one in his own house. If it be too small, he can easily calculate how much additional length and breadth would bring it to the size he desires; while if it be too large, he will be able to determine how much reduction would be advisable in its dimensions. In like manner he may measure doors, passages, windows, and everything connected with the plans of a house, and reproduce them with larger or smaller dimensions in his plans.

Those who are anxious to excel in house-planning must study the subject carefully, read some of the larger treatises on the subject, seek to take hints from the designs of others, and look at all new houses which may be in course of

erection in the place where they live, thus learning what to imitate and what to eschew.

As I have said in the first chapter of this book, architecture is a wide subject, and the amateur is most unlikely to succeed in his first ventures. For which reason it is far best for the amateur to confide his floor plans, when finished, to an architect, and get him to design the outside of the house, write the specifications and undertake the general superintendence of the work. Nevertheless, those who cannot, or will not, do this, will find the necessary directions for drawing the finished building plans, including the outside, in my book entitled "Every Man His Own Builder," price 5s. net, published by Messrs Crosby Lockwood & Son, 7 Stationers' Hall Court, London, E.C.

CONCLUSION.

In bringing this little work to a conclusion, I am conscious of much incom-

pleteness which the narrowness of its limits has necessitated. Nevertheless, I lay down my pen in the hope that these pages may be the means of improving, no matter in how small a degree, the rational planning of the homes of the people, and should this result be achieved I shall feel my trouble amply rewarded.

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